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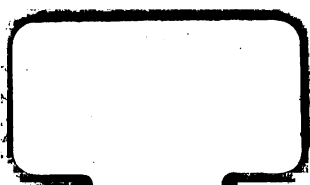
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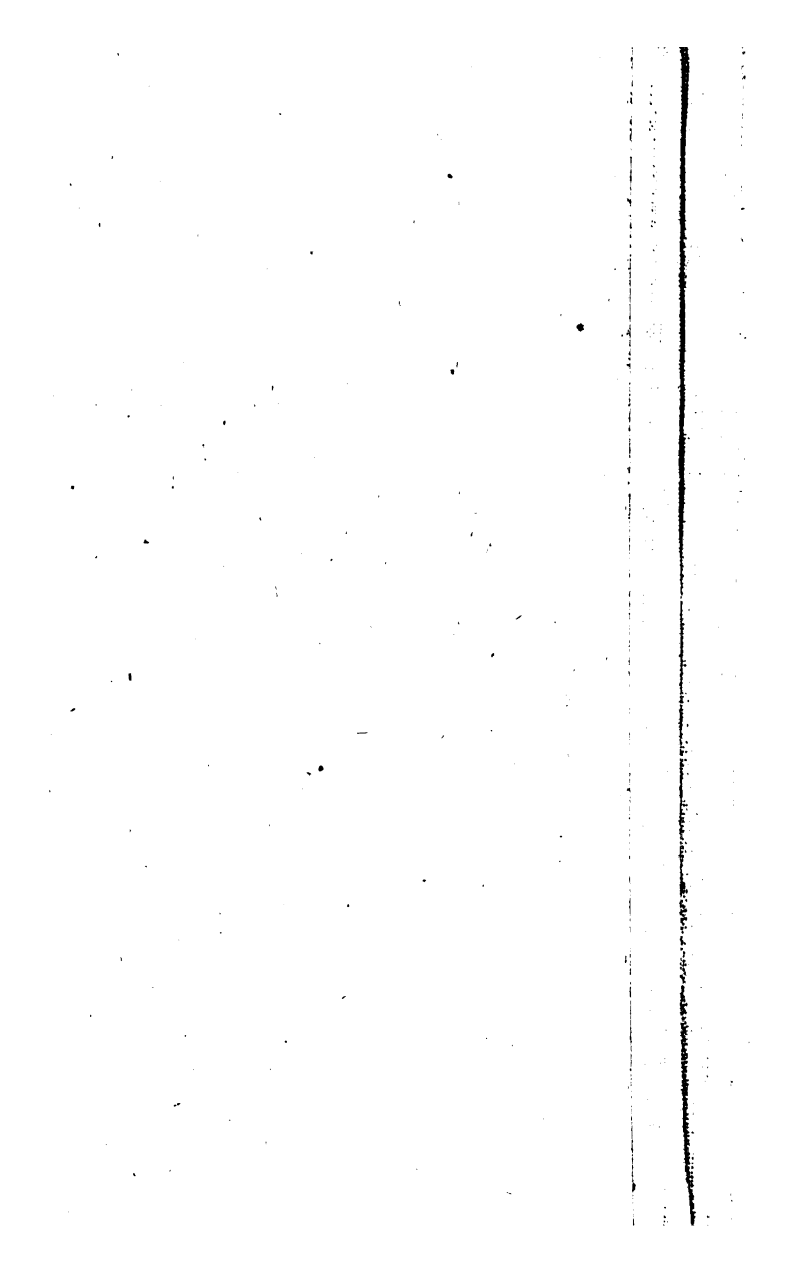
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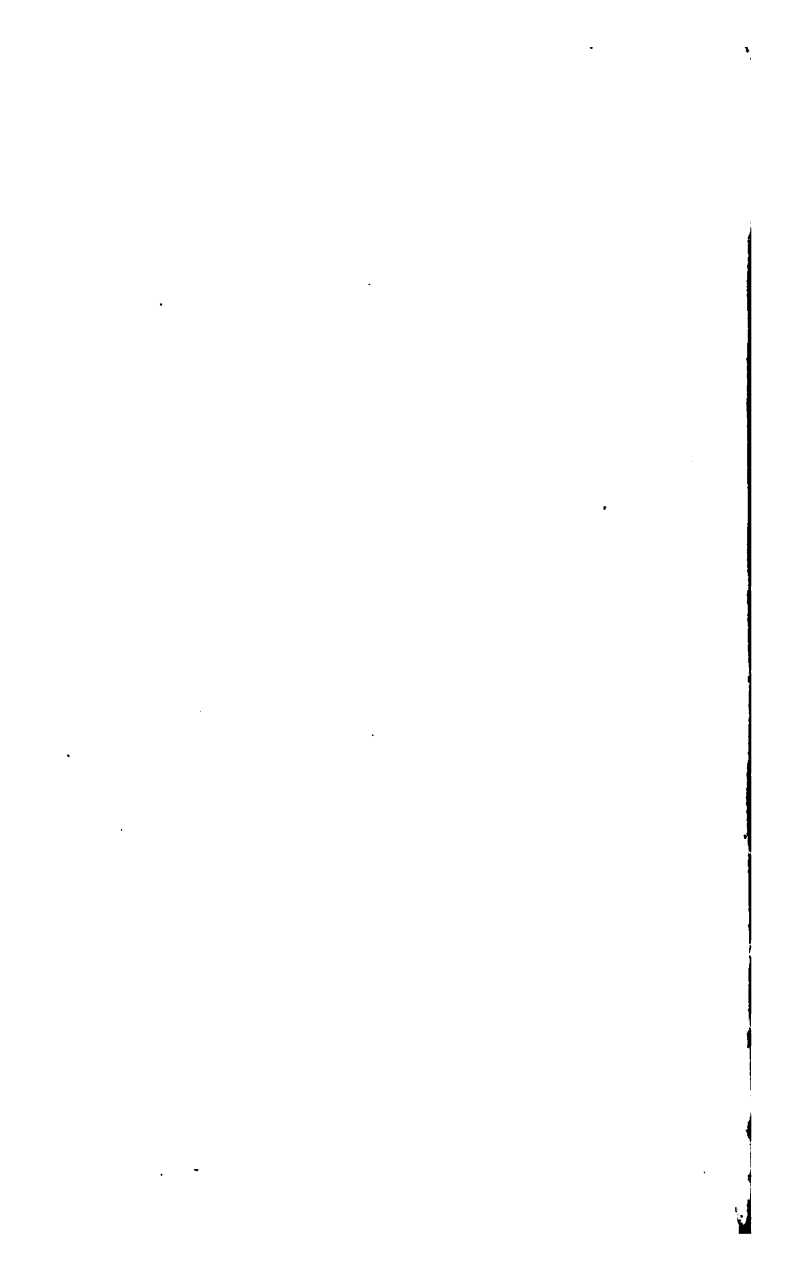
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HINTS
TO
S T U D E N T S
ON THE
USE OF THE EYES.

BY EDWARD REYNOLDS, M. D.
OF BOSTON.

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INTRODUCTORY NOTE,

BY PROFESSOR ROBINSON OF ANDOVER.

It is well known that no complaints are more common in our colleges and other seminaries of learning, than those which relate to the eyes; and there are probably none by which the studies of young men are more frequently interrupted. It is likewise well known, that the source of these affections is very frequently referred at college to the study of the Greek language; while in other seminaries, and at more advanced stages, the blame is in like manner often cast upon the Hebrew. In both cases, the forms of the letters are supposed to produce a peculiar and injurious effect upon the eye. Whether this be true or not, or whatever may be the cause of the malady, the evil itself is so great, that the writer was led to make some inquiries on the subject, of the distinguished Physician and Oculist, Dr. REYNOLDS of Boston. The views which he took of it seemed so just and im-

portant, and the whole path was in itself so novel in our country, and indeed so little trodden in the English language, that the writer could not but urge him to commit his thoughts to paper for the benefit of the public, and especially of those more immediately concerned—the students in our colleges and in our theological and other seminaries. The present article was written in compliance with this request. It is popular in its character, and level to the comprehension of all, while its positions are founded on scientific principles and long practical experience. It strikes at the root of an evil which has robbed the church of many of her most promising sons.

HINTS

ON THE

USE OF THE EYES.

THE Eye is the most wonderfully constructed organ of the body. It is one of the most important to every individual who desires to fulfil the great duties of man, as an intellectual and moral being. Its importance rises in value, when it is considered as the channel of most of our knowledge of nature ; and through her, of the wisdom, goodness, and majesty of God. It is the window of the soul. The wonders of the beautiful planet which He created for our temporary habitation, and the sublime splendours of the starry heavens, are all laid open to the mind, through the medium of this exquisitely fashioned organ. By the eye, we penetrate the mysteries of the animal and vegetable creation ; and are constrained to adore, in delight, the divine hand, which painted the flowers, and breathed the spirit of life, and gave capacities of enjoyment to such an endless variety of beings. The eye opens to the mind a field of observation vast as the creation, in which it may walk forth, and drink as from a living fountain, the waters of intellectual and spiritual life. How did the heart of " the sweet Psalmist " glow with devotion, when he opened the eye upon the

starry heavens! How did the mind of Newton expand, when the same glorious object was painted on his retina! The whole universe is a mirror, into which the eye may look, and see with a clearness nowhere equalled but in the book of Revelation, the wisdom, the goodness, the incomprehensible power, and the unutterable love of its divine Creator!

Milton speaks of the celestial light, that shone inward upon the mind, when the light of the sun was for ever withdrawn. But who that has listened to the divine bard, and heard him tell of things invisible to mortal sight,—who that has walked with him, and beheld the now unearthly beauties of his Eden,

“ Her goodliest trees laden with fairest fruit,
 Blossoms and fruits at once of golden hue,
 ——— With gay enamel'd colours mixed
 On which the sun more glad impressed his beams,
 Than in fair evening cloud, or humid bow,
 When God had showered the earth” —

who that has done this, does not know that all these beauteous images were originally brought by the eye to his soul; that nature, in her richest scenery and loveliest hues, was once painted on his “quenched orbs;” and that if the blind bard had always been condemned to the darkness of the “drop serene,” our eyes would never have been delighted with the unrivalled beauties which his genius has portrayed to them? The eye is the grand avenue through which science pours her rich treasures into the soul. Who does not know, that if Milton's eyes had not once poured over the classics and sacred page, our minds would never have been elevated and instructed by the treasures of knowledge, which his poem contains?

The spirit of poetry was doubtless the living being of his soul. It was implanted there at his birth by nature's liberal hand. It was a portion of himself; and though his eye had never opened upon the holy light, its stirrings might have been felt within, and poured forth in song. But we should have looked in vain for the image of the moon wandering through heaven's pathless way; the

flaming of the night-lamp in some lonely tower; the arched walls of twilight groves; the religious light thrown through the cloistered windows; and the many other beautiful specimens of poetic imagery, which are crowded into his inimitable *Il Penseroso*.

Sanderson, though blind from his first years, reached the heights of mathematical science, so that he could comprehend and rejoice in the giant efforts of a Newton's genius. Yet it must be remembered, that by the organs of others he laid the foundations of his fame. Had West and Littleton also been blind, his name would probably have never been enrolled among the mathematical prodigies of his age.

It is, however, unnecessary to attempt to prove the importance of the eye to the happiness and improvement of man; yet it may be well to be reminded occasionally of the value of blessings, which, from being the common property of all, are wont to be undervalued. God's greatest works are often the least regarded. The sun in the firmament shines upon the world, dispensing heat and life and beauty over its surface. We rejoice in its life-giving beams. Our eyes gaze in delight upon the endless forms of beauty ever springing up under its genial rays. How seldom do we pause, to direct our regards to this great source of them all! We forget the blessing, because we have never felt its want. "*Optima fit pessima*;" if I may render it literally, "The greatest becomes the least." So it is with the eye. Through it the mind receives its chief stores of knowledge, and many of its purest streams of joy; but too often we first awake to a true sense of its value, when disease has clouded it in darkness.

The art of printing has added a tenfold value to this organ; as the knowledge of the uses of steam has to the mechanical powers. By the aid of this noble invention, the mental treasures of ages have been gathered together, and brought before the mind. It is now only necessary to open the eye upon these, and the mind may drink from all the fountains of human experience; and learn lessons of wisdom, which were formerly denied to it.

The art of printing opens a high and broad way, where the whole human family, however widely dispersed, may walk, and hold the most intimate interchange of thought and feeling. It brings the present and the past into such close contact, that each generation rises, as it were, out of the past. In one sense, the promise may be said to be fulfilled, that "the child shall be born an hundred years old."

Science, art, literature, all expand, as the eye surveys, on the historic page, the labours, errors, and achievements of the past. But it is in Theology, that the eye appears in its surpassing value. By it, we read the word of life; and through it, the light of heaven shines into the soul. To the man that cannot read—to whom the eye is useless as to books, the opportunities both of intellectual and moral cultivation are exceedingly diminished. How important then to the ministers of religion, who are expected to devote their lives to the study of the sacred page; to priests whose "lips keep knowledge;" who are to hold forth the light of truth to a dark world; on whom thousands depend for all they will ever learn of it on this side the grave,—how important to them is the free and perfect use of this organ!

The abundant facilities for intellectual cultivation, which form the glory of the present age, render those who devote their lives to study peculiarly liable to diseases of the eye. It may emphatically be called *the reading age*. Reading is the fashion of the day. It commences with the child in the nursery; constitutes the chief business of boyhood and youth; and continues through manhood and old age. No period is considered too tender for the all-important business of education to be commenced. No threatening evils are of sufficient moment to stand in its way; no acquirements sufficiently great to permit repose. As one advances in his course, new demands for exertion present themselves; new temptations multiply; new sources of information are thrown open to him. His eyes begin to manifest the alarming signs of inordinate use; but they are too often disregarded, until incurable disease numbers him among

its victims;—and he learns, when too late, that he has closed the widest door of knowledge to the soul; and is left to mourn, with many a kindred spirit, the premature sacrifice of his usefulness and power.

It cannot have escaped the notice of every medical observer, that an unusual prevalence of diseases of the eye marks the period in which we live. Indeed, they are so prevalent, that they may be considered one of its common and peculiar trials. How many cases of afflictive, often of incurable weakness of the eyes, daily present themselves among the studious portions of the community! How many clergymen are annually compelled by this cause, to abate their exertions, or to discontinue them altogether! Among those who devote themselves with ardour to the cause of literature and science, what numbers are obliged by the failure of these organs, to proceed heavily on their course, to abandon its pursuit! Among our statesmen and public officers, how many, from the same cause, perform their duties with impaired energies, and diminished usefulness! How often are religion and learning called to mourn the loss of strong men, to whose valuable exertions the church and the world looked up with hope and confident expectation!

It is highly important, therefore, that the causes which lie at the foundation of this fearful amount of evil, should be clearly ascertained; and the means pointed out, by which they may, as far as possible, be prevented or remedied. In this age especially, which presents such numerous temptations to commit errors that may prove fatal to sound vision, perhaps no better service can be rendered to the cause of religion and letters, than to ascertain these causes and point out these remedies.

It is a prevalent opinion, that a studious course of life almost necessarily produces, sooner or later, debility of the eyes. We believe this to be a mistake; and we appeal to the history of studious men to bear us out in the opinion. Many may be cited of all professions, and in all times, who have used their eyes, to what would almost seem an incredible amount; but who have enjoyed,

eases; and which only require to be known that they may be avoided. Perhaps no subject so intimately connected with the vital interests of learning, has been so much neglected, as that of the preservation of the sight. There are very few, about which such general ignorance prevails; and none perhaps, that more imperiously demand the attention of all who devote themselves to study. It will be the object of this essay to point out some of these bad habits; to show, in as simple a manner as possible, some of the means by which their baneful influence may be counteracted; and to insist upon the necessity of care and attention in the use of the eye.

The narrow limits and brevity to which the following remarks must be confined, permit this to be done only in a very general manner. The magnitude and importance of the subject demands rather a volume than an essay. But if the few hints that are to be presented effect nothing else, we are not without the hope that they may awaken the mind of some who read them to a sense of the importance of the topic, and perhaps induce them to institute a more faithful examination of it.

I. Few considerations are more important in treating of the preservation of the sight, than that the student should have correct ideas upon the degree and proper adjustment of the light by which he studies; and perhaps none, about which greater mistakes are continually made by studious men,—mistakes which, although by almost imperceptible degrees, most surely lay the foundation of serious weakness of the eyes.

One of the most prolific and least suspected causes of weakness of sight, is the exposure of the eyes to the frequent alternations of weak and strong light. It has caused the destruction of many eyes. Very few are endowed with sufficient strength to endure such changes, when often repeated, with impunity. When the eyes are closed, and the light wholly excluded, the sensibility of the retina becomes exceedingly elevated; so that it bears immediate exposure to strong light with great difficulty. The effects are analogous to those occasioned by great and sudden changes of temperature in other parts

of the body. If an individual thrusts the hands for a few minutes into ice-cold water, and immediately transfers it into water in a lukewarm state, its sensibility is so increased, that he will be hardly persuaded to believe that the water is not hot. It is just so with the eye. By long continuance in darkness, the nerve becomes highly excitable, and the blood-vessels easily assume an undue action, which may be readily converted into dangerous disease. The experience of every person affords proofs of this. How unpleasant the sensation, when a lighted candle is suddenly brought into a room, where one has been sitting in previous darkness! How uneasy the sensations occasioned by going from a dark room, where one has been confined for a short time only, to the bright light of day! What protracted debility of the eyes frequently results from long confinement in the partial gloom of the sick chamber! When the exclusion of the light has been complete, and continued sufficiently long, a sudden influx of light to the eye may so injure the nerve, as to produce incurable blindness. Dionysius the Tyrant recognized this principle, and acted upon it, in gratifying his revenge upon his miserable captives. Regulus was cruelly blinded by the Carthaginians in the same way. Instances are on record of prisoners, who, when restored to liberty, after long confinement in dark dungeons, have been urged by the sufferings occasioned by being brought into the light, to beg that they might return to the comparative comfort of their abode of captivity. The story of Caspar Hauser, the interesting but unfortunate victim of a mysterious cruelty, affords another striking example of this principle.

When we reflect upon the fatal consequences of the changes in these extreme cases, and consider how morbidly sensitive the retina becomes by confinement in darkness, we shall be less surprised to hear, that similar changes, though in a less degree, may, when often repeated, as they are by the injudicious habits of students, seriously injure the sight.

The manner in which nature pours the light of day upon the earth, is in beautiful harmony with this principle

or necessity of the eyes. She never does it suddenly. The approach of the sun is ushered in, long before he appears above the horizon, by the faintest possible light; which very gradually increases in strength, until, at last, he appears in his full splendour. This beautiful accommodation of the light to the nature of the eyes, affords a useful lesson on the art of preserving the sight. It secures the organs, in the most perfect manner, from the danger of being injured by a sudden change from darkness to bright light, as they would otherwise be; and as indeed they often are, in those countries where the sun remains so short a space of time below the horizon, that a short twilight is exchanged for the full brightness of day. The inhabitants of those regions are obliged to make an artificial night, by excluding every ray of light from their sleeping chambers; and when they leave these they are of course immediately exposed to the bright glare of the sun. Blindness from amaurotic* affections is a very prevalent disease among them.

A knowledge of these facts, confirmed by the experience of every careful observer, directs us to some very important rules for the preservation of the eyes. A very slight reflection upon our modes of life, discovers many ways in which we continually depart from the above rule; and lay the foundation of serious, and often incurable weakness of the eyes. For instance: We carefully exclude all light from our sleeping-rooms, that our sleep may be less disturbed; and long after the full light of the sun has been shining about our dwellings, we arise, and opening the eyes, suddenly expose them to its bright glare. The bed is placed in such a position, that though the room may not have been thus carefully closed, our eyes are opened, on awaking, upon a bright window. We select, with little judgment, the darkest room for our study; and expose the eyes suddenly, in the various duties of life, to the stronger lights of the other rooms and of the open day. We not unfrequently sit in our

* *Amaurotic, Amaurosis*, from the Greek *ἀμαύρωσις*, dimness, weakness of sight.—ED.

rooms after twilight, with the eyes closed, for the purpose of giving them what is considered a salutary repose ; and then suddenly expose them to the strong artificial light of candles and argand lamps ; never dreaming that the uncomfortable sensations momentarily experienced, are the result of injury to the organ. The student is in the habit of surrounding the lamp with thick shades, which darken every part of the room, except the book or paper upon which he is reading or writing ; and alternately turning the eyes from the brightly illuminated surface of the one, to the dull gloom of the other.

These examples are sufficient for our purpose. Many others of similar character, all obvious infringements of this law, will present themselves by considering the habits of studious men. The injury occasioned by each act of disobedience to the plain dictates of nature, is exceedingly slight ; so that it does not arrest the attention. But is it wonderful, that, in the course of months and years, these often repeated injuries, however small, produce diseases ; that the retina, thus treated, should begin to manifest symptoms of irritability ; and finally, when persisted in, refuse to perform its functions ? Indeed, is it not rather wonderful that the sight is not oftener destroyed ?

The relation of the following case here, may be useful, in impressing this important principle on the mind :
 “ A young traveller, of robust constitution and sound health, arrived late in the evening at his lodgings in an inn. Being fatigued, he fell into a profound sleep, from which he was awaked on the following morning, in the most disagreeable manner, by the rays of a bright sun, which were reflected by the wall and floor of the chamber upon his face. He immediately arose and closed the window curtains, which were unfortunately white, and fell asleep a second time. But the sun soon aroused him more rudely than before ; for its direct rays now shone through the thin curtain, full upon his face. A free secretion of tears, united with a slight redness and a trou-

* Beer, *Pflege gesunder und geschwächter Augen*. [Beer on the Treatment of Sound and Weak Eyes.]

blesome tension of the eyes, were the immediate consequences of this occurrence. These would soon have disappeared, if the sufferer had not on the following morning exposed himself, in the same manner, to the rays of the sun. On the next day he was attacked with a violent ophthalmia, which for a time resisted with great obstinacy all curative measures; and finally left the eyes with a considerable debility and such a predisposition to inflammation, that for a very long time after he was unable to bear the slightest wind, or the least heating of the body, without suffering from red, weak, and watery eyes."

Another case in point is related by Himly, from a small tract entitled "Fabric of the Eye."* "A lawyer took lodgings in Pall Mall. The front windows of the house faced the street, and were exposed to the full blaze of the meridian sun; while the back room, having no opening but into a small, close yard, surrounded by high walls, was very dark. In this room he performed all his labours and studies; but came into the other to his breakfast and dinner. His sight soon became weak; and at last, he was troubled with a continual pain in the eye-balls. He tried glasses of various kinds, and sought counsel of various oculists, but without obtaining relief. At last it occurred to him, that the frequent alternation of light, in going and coming suddenly from the dark study into the bright blaze of the dining-room, might be the cause of his disorder. He immediately hired other lodgings in a different quarter of the city, more favourably situated in regard to the light; and discontinued reading and writing for a while in the evening. This was sufficient, and soon effected a cure."

These cases are very instructive. They show the great danger of sudden changes from weak to strong

* Himly, *Ophthalmologische Beobachtungen und Untersuchungen, oder Beyträge zur richtigen Kenntniss und Behandlung der Augen im gesunden und kranken Zustande.* [Himly's *Ophthalmological Observations and Enquiries or Contributions to correct Knowledge and Treatment of the Eyes, in the Healthy and Disordered State.*]

light, and prepare us to feel the importance of the following rules.

1. No man who is desirous of securing the advantage of sound, healthy eyes, should suffer himself to expose them suddenly to a strong light, on awaking from sleep.

The surest mode of avoiding all danger from this source, will be found in a habit of early rising. It is doubtless a law of nature, that we should retire with the evening twilight, and arise when the morning dawns. If all students, especially those who have weak eyes, could be persuaded to conform to this rule, they would be amply rewarded by a sounder and more permanent vision. But when from indolence, the power of habit, or other unavoidable causes, this cannot be done, nature's mode of illuminating the earth should be borne in mind, and the same advantage secured, by a judicious arrangement of the sleeping apartment. A room should never be selected for the sleeping chamber, if it can be avoided, which faces the rising sun. A western location is always preferable, and will be attended with less hazard. Where this cannot be done, other arrangements may be made, by which all the above-mentioned evils can be avoided, and the advantages of a western location secured. Let the bed, for instance, be so situated, that the day-light shall never break in a direct line upon the face; but fall backwards over the head. If the windows are opposite to the rising sun, let them be guarded by curtains or blinds of sufficient thickness to soften and modify the intensity of its rays, and render the light agreeable to the eyes. A simple curtain suspended at the side of the bed, next the head, will be sufficient for this purpose.

2. The apartment selected for the study should be a well lighted room.

This also is a very important direction to all whose professions demand a great and continual use of the eyes. Not only are sudden changes from darkness to light, injurious immediately after awaking from the sleep of the night; but, as appears from the above case, they may, if often repeated, be equally injurious in the daytime. Very few who study much, can neglect this caution, without impairing, sooner

or later, the strength of their eyes. Instances are numerous, where such neglect has induced a degree of irritability that has prepared the way for fatal weakness and disease. Indeed, it can seldom be borne for any length of time, without inducing a painful sensation in the organ, which, if not removed by more judicious management, degenerates into troublesome disorder, and wholly unfits the eye for long continued, close application. The frequent habit of going from a dark study into the brightly illuminated streets, almost invariably generates a high degree of morbid sensibility of the retina, and intolerance of light, very obstinate and difficult of cure.

3. The individual who devotes the evening to study, should never precede his labours by sitting an hour or more in darkness.

Many are in the habit of doing this, with the belief, that they are giving the eyes rest, and performing an essential service to them; and preparing them the better for the duties of the evening. But it is a great mistake, as will at once be perceived, by bearing the preceding observations in mind. There can be no more certain mode of inducing all the evils of sudden changes of light.

4. The room in which the evening study is performed should be well lighted.

An error almost fatal to enduring strength of the eyes, is very prevalent on this subject. Some from avarice, some from mistaken economy, others from ignorance of the true principles which should regulate the degree of light proper for the labouring eye, are in the habit of studying whole evenings, in large rooms very inadequately lighted. We have often seen the student poring for hours over his books and papers, and straining his eyes, by the dull glimmering of one poor candle or lamp. Nay, as if more anxious to save oil than eye-sight, we have seen others, whose lamp was provided with double burners, carefully pull down the wick of one, that there might be no unnecessary waste. When the smarting lids and watering eyes have compelled them to extinguish the other, we have felt more disposed to charge them with avarice, or censure them for ignorance, than to sympathize in their

sufferings. Others provide what is considered by many as the best evening light—the argand lamp; but covered with so thick a shade, that the only part of the room sufficiently illuminated, is the book or paper over which they are occupied. This is a great mistake. A moment's reflection shows that both these are subjected to the dangers above described. In the first case, the eyes become accustomed to a degree of darkness, which, compared with the brighter light of the succeeding day, is very detrimental. In the second, they are exposed to continual alternations of light during the evening; as they are necessarily so frequently obliged to turn the eyes from the highly illuminated surface of the book, to the comparative surrounding darkness of the room.

Nothing exerts a more favourable influence in preserving a healthy condition of the student's eyes, than a proper adjustment of the light during the hours of labour. Perhaps nothing tends more certainly to injure them, and to induce serious debility, than neglecting to secure the advantages of such an adjustment.

Too little light debilitates the eyes, not only by the alternations above mentioned, to which every one who studies by such a light is constantly liable; but it also strains them, by compelling them to inordinate action, in order to obtain distinct vision. The uneasy sensations occasioned by attempting to read or write, for a short time only, by an inadequate light, are sufficient evidence of this. Whenever they are perceived, they should be regarded as the premonitory signs of more serious evils, to which such a habit may lead.

Too much light, on the contrary, dazzles and confuses the eyes. If they are continually exposed to it, as they are in apartments injudiciously selected and lighted, a degree of morbid sensibility will, sooner or later, be induced, and unfit them for the purposes of study.

In northern countries, which are almost perpetually covered with snow, instances of blindness are exceedingly frequent from the great exposure of the eyes to the strong dazzling light, occasioned by the reflection of the sun from their white surface. In these cases, the powers of

the retina are suddenly exhausted by the stimulus of extreme degrees of light. The same effect not unfrequently takes place more gradually, but with equal certainty, when the eyes are exposed, for a series of years, to labour in rooms too much lighted.

From these observations we draw the following rules:

5. The eye both in reading and writing, should always have that moderate degree of light, which is best suited to its powers; which produces easy, distinct vision; and which is wholly unattended with any unpleasant sensations.

6. The light of the room in which we study should be, as much as possible, equally distributed. It should never be a reflected or concentrated light. Both these kinds of light, when the eyes are long and frequently exposed to them, are very injurious. Nothing can be more dangerous to the health of the eyes, than exposure to a highly concentrated light. The late eclipse of the sun occasioned many melancholy examples of the pernicious consequences of such exposure. The writer has seen two cases of incurable blindness, in individuals who ignorantly watched its progress with the naked eye; and many others, in which vision was seriously impaired. These are extreme cases; but it is not difficult to perceive, that the same cause in a less degree may, in the course of time, prove highly debilitating to the vision. They are mentioned to impress the mind with the importance of the direction. The neglect of it has laid the foundation of many a dangerous ophthalmia, followed by weakness of sight, that unfitted the individual, during life, for diligent study.

Nothing, for example, can be worse than the habit of studying at an open window, which receives the strong reflection from an opposite wall, against which the sun shines. The light of a room, where the windows reach to the floor, is also injurious. In this case, the light is reflected from the floor up to the eyes, and the apartment is unpleasantly and unnaturally illuminated. It is almost impossible that the individual who studies continually in such a light, can preserve sound, healthy eyes. An apartment into which the direct rays of the sun shine, is much more easily

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endured by the eyes, than one where they are thus tormented by his reflected rays.

Nature's light is uniformly and equally diffused. Wherever the eye turns, over the broad surface of creation, this harmonious distribution is pleasing to it, and in perfect harmony with its functions and powers. Perhaps the man who, in the pursuits of literature, is ever immured in his study, especially in the city, surrounded by houses which are continually annoying him by reflected light, cannot, on many accounts, be considered as living in a state of nature,—certainly not, so far as the health of the eye is concerned. Therefore, when he is compelled to occupy such a room, he will, if he sets a proper value upon the unspeakable blessings of a sound, permanent vision, imitate as far as possible nature's method of illumination, and adopt such measures as will prevent the introduction of both the direct and reflected light.

This is easily done. The light of such an apartment should be softened by placing green or blue curtains before the windows. Even the furniture of the study should be such as does not offend the eye by occasioning a concentrated light. It should not be adorned, for instance, with any bright or brilliant objects, upon which the eye cannot repose with pleasurable sensations. The walls should be painted with a soft blue or green colour. The carpet should be of green. This is the colour which nature, who in all her works seems to have provided with much care for the health and comfort of the eye, has so universally painted the world. The nearer her plan can be imitated in the little world where the student is destined to pass such a portion of his days, the less liable he will be to suffer from weakness of the eye.

The expense of this is trifling. But who that reflects upon the value of the eyes, and the unspeakable loss which every one suffers when deprived of their use by disease or weakness, does not perceive at once, that all pecuniary considerations deserve the name of madness rather than a praiseworthy economy?

7. A few words may be proper, upon the quantity of light that is best adapted to evening study. It should al-

ways, as in the day, be sufficient to enable the student to see easily and distinctly, and without occasioning any effort, labour or straining of the eyes. Here, very fatal mistakes are often made. How many students sit for whole evenings, straining the eyes, even till midnight, by the light of one dull lamp! How many think, while they do it, that they are performing an important service to the eyes! How many wonder, that with such prudence and care, they should be obliged to retire from their labour by the itching, painful sensations of the organ; by the watering, redness, and other symptoms, which speak a language so plain, that one would think the most stupid might understand its meaning. The eyes are strained—they have been labouring in darkness; and this is their mode of begging for more light, or repose. They have no organs of speech. If they had, they would make the request long before compelling obedience by the smarting and pain. How many have continued to commit this error, until incurable weakness of the eyes has left them to mourn, when too late, their ignorance and folly!

If the common lamp is used, *two* would, to most eyes, be better than one; since the light of a single lamp, especially if the print is small, is insufficient for easy, distinct vision.

But common lamps and candles are the worst possible means of lighting a study; and cannot be recommended. They are bad, in the first place, because they occasion an irregular, flickering light. The flame is unsteady; especially in the heat of summer, when the windows are open; and in the winter, when so many strong currents are blowing about them. The eyes are often seriously incommoded by this. If candles are used, the best kind are the wax or spermaceti, because they are more pure, and the flame preserves a more uniform length, and a more steady, perpendicular direction. They are also better, because they emit no smoke, and do not deteriorate the atmosphere of the room, like burning oil and tallow. Beer, the distinguished German oculist, recommends four wax candles as the most preferable light for evening study.

In the opinion of the writer, the common argand study lamp, now so much in use, but without the dark shade, for reasons already mentioned, affords the most appropriate light for the health of the eyes. It yields a sufficient light. Its degree can be more easily graduated to the sensibility of the eye than any other. The flame is perfectly steady and uniform, and unaffected by currents of air. It occasions no smoke, and consequently is better adapted to secure all the desiderata demanded on the principles by which our rooms should be artificially lighted for evening study. The ground-glass shade, however, is not the most appropriate, because it produces too concentrated a light, and is therefore injurious to the eye. The best shade is one of oiled paper, which diffuses a sufficient light round the room, and is not, by its glare, offensive to vision.

Before leaving this branch of our subject, there are several other habits, which, in the course of time, may injure the eyes, and are therefore of sufficient importance to be noticed. Their importance perhaps is greater, because they are so common; and because their injurious effects are produced in such an insidious manner, and by such imperceptible degrees, as to be easily overlooked.

1. In connexion with the above remarks upon the injurious consequences of reflected and concentrated light, we would enter a protest against the practice, so common among studious men, of wearing shades before the eyes, when they read by candle light. The majority who do this, with the belief that they are protecting the eyes, and securing them from danger, commit a serious error. This will be seen at once, by bearing in mind the facts upon which some of the above mentioned rules are founded. They keep the eyes in an unnatural degree of darkness, that unfits them for the stronger light to which they are exposed when the shade is removed; and thus they are exposed to the evil consequences described when speaking of the effects of sudden changes from weak to strong light.

But there are exceptions to this rule. They are those

individuals whose eyes are prominent, and stand out far from the head, and whose eye-brows and eye-lashes are weak and deficient. These are deprived of nature's shade, and require an artificial one. The best is a shade of thin green silk, which does not wholly exclude the rays of light, but only softens them. The worst are varnished shades of leather, or any other bright, impervious material. They are improper and ill adapted to the end, because they screen the eye too much, and cause the pupil to be too widely dilated; by which more light is permitted to enter it from the highly illuminated surface of the book or paper, than consists with its healthy condition. The effects are not dissimilar here to those produced by exposing the eyes to a too concentrated light.

2. But we would enter a louder protest against another habit, wholly at variance with all the above principles, and which has prematurely ruined the eyes of hundreds and thousands, and robbed religion and learning of many an able friend. It is the habit of reading and writing by twilight. Nay, some have been mad enough to ruin the eyes by attempting the same by moon-light! They have done both to save time; a most miserable, senseless economy, by which, in the hope of gaining a few minutes, months and years of useful labour have been thrown away. This folly has laid the foundation of many cases of weakness of the eyes, for the removal of which all medical treatment proved unavailing.

3. Another habit requiring a cautionary notice, is that of gazing for a long time at the bright moon. The history of astronomy points to a number of its followers who were for ever blinded by this habit. The disagreeable feeling of tension, and the inexplicable, unpleasant sensation experienced by looking for a few minutes at the full moon with the naked eye, will, on experiment, convince any one that it is a habit dangerous to vision. A little reflection explains it. It is a highly concentrated light; and the dilated evening pupil permits it to pass to the eye in full quantities.

4. There is another habit in which the strongest eye cannot indulge without danger, and which to weak eyes

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has proved fatal. It is that of looking at the lightning, especially in the night-time. There is a sublimity in a thunder storm by night, which affords a great temptation to the lovers of nature to commit this error. It is one of nature's grandest spectacles; but let it be remembered, that it is one of the most sudden and extreme alternations of light and darkness that can be presented to the eye—and to a weak eye, would be full of danger.

5. The habit of reading and writing by a side-light should also be avoided. This is an error into which many reading men constantly fall, and by which not a few have impaired their vision. Most men do it without thought. Some, who pay great attention to the care of the eyes, do it from principle. To avoid the injurious consequences of the bent position while leaning over the table, they are in the habit of sitting upright, and holding the book in their hand, in their evening studies, and arranging the light so that it shall shine upon them sideways.

It is a general remark of those oculists who have enjoyed the most ample opportunities for observation, that the left eye is much more frequently the subject of disease than the right; and that when both are diseased, the left is the most affected. They explain this fact by the habit that most men adopt, of reading and writing by a side-light, and generally the left side.

The consideration of the nature of the iris, and the laws which regulate its actions, explains the manner in which this habit injures vision, and predisposes to disease.

The iris, as every one knows, is that delicate curtain provided by nature to protect the tender retina from the injurious action of unnecessary light. When the light is in sufficient quantities to injure the nerve, this curtain closes for the purpose of excluding it. When there is too little light for distinct vision, it dilates to admit more.

But the sympathy existing between the iris of the two eyes, is so perfect, that they always act, more or less, in concert. When one is in the shade, (as it is, for instance, while reading by a side-light,) the other being influenced by it, will be unable to preserve that state of

contraction, which the necessity of the retina requires. Consequently, the individual, while engaged in reading or writing in this position, exposes one eye to the admission of a greater degree of light than is consistent with its healthy condition. With this fact in view, it will appear less surprising, that the student, who continues this injurious practice day after day, and night after night, for a series of years, should, in the end, injure the eye, and expose it to weakness, if not disease.

The bad consequences of this habit are sometimes manifested very early in those individuals whose eyes are weak, by the uneasy sensations produced in the exposed and unshaded eye. Himly informs us, that in early life, when he was in the habit of reading much by this sort of light, he was not unfrequently annoyed, even in sleep, by the pain which it occasioned in that eye.*

The above facts account for the uneasy sensations occasioned by looking intensely, for a long time, through telescopes and perspective glasses, with one eye, while the other is closed.

Of course, these observations are less applicable to the day than to the evening light. The light, in the daytime, is so equally and universally diffused, and so much more in harmony with the healthy functions of the eye, that reading by a side-light is attended with comparatively little danger. The case is very different in the night, especially with men who fall into the unwise economy of saving oil and candles; and who sit, for whole hours, reading by a single poor lamp, which shines indeed upon two spots, the left eye and the book, but excepting these, sheds only light enough upon the other parts of the room, to render the surrounding darkness visible.

But what is the direction that is best suited to the eyes, and is the least liable to injure them? It is that light which is sufficient for distinct vision; and which falls over the left shoulder, in an oblique direction, from

* Himly, Ueber den Nachtheil der Beleuchtung von einer Seite her. [Himly on the Bad Effects of a Side Light upon the Eye.]

above, upon the book or study table. Every study, however situated, may, with little trouble, and very trifling expense, be accommodated with such a light. The advantages arising from it in a long life of study, may be incalculably great.

6. The above remarks show the impropriety and the evil consequences following another bad and very common habit; viz. that of sitting with the back to the window, and holding the book or paper before the eyes, in order to see more distinctly. Whoever does this constantly, will sooner or later experience, whether he believes it or not, the evils of exposing his eyes to a concentrated light, while the pupil is in an unfavourable state for its reception.

7. Another bad habit, which, if much indulged, cannot fail to injure the eyes, is the practice of holding a candle between the eye and the book, for the purpose of obtaining more distinct vision. They only, however, are in danger of falling into this error, whose eyes from natural decay require the aid of glasses.

When the eyes begin to fail from age, and the individual is obliged to remove the book farther off than he has been accustomed to, in order to obtain distinct vision, the image painted upon the retina is proportionally smaller; and of course, the farther the object is removed, the less light comes into the eye. Consequently, the image will be also fainter. These facts, with another, that the pupil is smaller, and admits less light, when increasing years have occasioned long-sightedness, explain the reason, why at that period of life we require more intense light. A true economy of the eye consists, not in thus exposing them to a concentrated light, but in having recourse to spectacles by which these evils are so simply and so easily remedied.

8. With one observation more, we close the subject of light. The student should protect the eyes in summer from the direct rays of a burning sun. The best remedy against this is, that the rim of the hat should be of sufficient breadth to shield the eyes. *Eye-destroyers* would not be an inappropriate name for the narrow things, which, by some of the more recent fashions, are called hats.

II. The above remarks are perhaps sufficient to leave upon the mind some of the most important principles in regard to light, in the management and preservation of the eyes. We now proceed to the consideration of some other points, of equal consequence. It is very important to ascertain the periods of the day, when the eyes are capable of bearing severe labour with the greatest impunity. By possessing clear, definite ideas upon this, and acting upon them, much may be effected during a long course of studious habits, in securing the blessings of sound healthy vision.

1. The morning, after moderate but sufficient sleep, is the most favourable period for study. The eyes, as well as other parts of the body, have been rested and strengthened by the repose of the night, and come with renewed vigour to their task. They are less easily fatigued, and are able to bear greater exertion at that period than at any other. The exchange of midnight for morning lucubrations, would confer, through the beneficial action upon the eyes, an essential benefit upon the cause of literature and religion. We earnestly recommend all to whom these interests are dear, and who are called upon by the circumstances in which they stand to labour in this service, to avail themselves of its advantages. Few changes would conduce more to a diminution of the prevalence of diseases of the eyes among students, than the habit of early rising, and securing the advantages of nature's best, purest, and softest light, for the performance of the more arduous portions of duty. They especially would secure an ample reward by it, whose eyes have been rendered unfit, either by constitutional weakness or imprudent management, for long-continued, diligent efforts. The advantages to such individuals, of morning over evening light, are incalculably great.

One precaution, however, is necessary to be observed ; otherwise, the eyes may be injured by morning light. It is impossible to go, as some do, immediately from the bed to the study table, while the eyes are but half opened, and the student may be said to be half asleep. This is an extreme from total repose to instantaneous exertion.

All extremes are injurious to the animal frame ; especially to parts of such peculiar delicacy of structure and functions as the organ of sight. Let the morning student, therefore, not be in too great haste, on first awaking from sleep, to be at his books. He should move about for a little space, until his eyes recover from the first weakness that is generally experienced on awaking, before he goes to his studies.*

2. Much use of the eyes immediately after a full meal, is injurious, and should be avoided by all students ; especially those whose eyes are not remarkably strong. Every feeling of the system shows, that nature requires rest from all exertion at this time. Especially does the disposition to sleep, the little inclination for thought, and the heaviness of the whole head, prove that there is a tendency to congestion there, and a peculiar impropriety in tasking the brain or eyes at such a time. The florid look, the turgid, straggling vessels that appear on the *conjunctiva* of the eyes of those who continually commit this error, are sufficient evidence, were there no other, of its dangerous tendency.

3. All labour or study, which strains the eyes much, when the body is from any cause in a heated condition, should also be carefully avoided. The reasons just urged against using the eyes immediately after eating, are equally binding here. There is a general increased arterial action at such times ; and with deep-thinking men, public speakers and others, with whom the brain is in a constant state of activity, a peculiarly increased tendency to congestion of the head and eyes. Consequently, they should not be subjected to any intense action, until the body is rested and cooled, and the general arterial circulation equalized.

* The above directions, however, are not applicable to all. There are some individuals who suffer more inconvenience from using the eyes in the morning than at any other part of the day. Indeed, this is not uncommon with those who have weak eyes. Such persons should carefully avoid all straining of the eyes at this time. They should commence no labour, until the feeling of uneasiness about the eyes, and the slight haze which is spread before them, have disappeared.

Whoever has been warmly engaged in public speaking, either from the pulpit or bar, when his feelings have been excited and he has been animated with a strong desire to infuse the spirit of his own mind into his hearers, is conscious, by his feelings afterwards, that the head is unusually crowded. If he tasks the eyes immediately after by a strong effort, he will be conscious that they are less calculated for it than at other times.

Beer tells us, that he could mention many melancholy examples of distinguished orators, who, from the neglect of this rule, by putting the eyes to an unwise use immediately after delivering their orations or sermons, have in a short time brought on a weakness almost fatal to vision; and who were ever after wholly incapacitated for the performance of the duties of their station.

4. The straining of the eye-sight should also be carefully avoided by artificial evening light. The day-time, as we have said before, is the proper period for hard study. The evening is the period for repose or amusement. Nature has provided a light by day, which, if not spoiled by man's device, acts rather as an agreeable stimulus than as an injury to the organ of vision. It is impossible, when she has withdrawn it from the earth, to substitute an artificial light that is equally agreeable and equally innocent. If the student will be content to study only by the light of nature's lamp, and to repose, when she, for his good, has extinguished it, he will diminish exceedingly the chances of weakened vision. More eyes have been injured by Saturday night sermons, than by the week's study that preceded them. The prevalent error that "a man cannot write until the spirit moves," has unfitted many a ready writer for much useful labour. Through man's native indolence, it will probably destroy many more; for the spirit seldom will move the procrastinating, lazy man, until the setting sun compels him to light his candles for the evening and midnight toil.

5. When the student is obliged to use the eyes much by candle light, he should select such reading or study as is not necessarily connected with great mental effort; since this always increases the tendency of the blood to

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the head, and augments the danger of injuring the eyes.

6. When there is no necessity in the case, and the choice is free, writing is preferable to reading as an evening employment, provided it is not attended with any mental effort. It will be found, on trial, to strain the eyes less.

III. The eye has been denominated by a distinguished German writer, a *microcosm*.* “As man,” says he, “is to be considered a little world (microcosm) in relation to the earth upon which he lives, even so must the eye be considered a microcosm in regard to the individual man.” There is great propriety in the term. An examination of the structure of the eye, presents us with the striking fact, that a perfect specimen of each of the different membranes which go to form the whole body, enters into its composition. Each of these various membranes and parts of the organ possesses the same properties and peculiarities, is endowed with the same vitality, and governed by the same general laws, with those to which it is akin. Consequently a mutual sympathy of the most intimate character, is constantly maintained between them. Neither is independent of the other. This sympathy, this mutual dependence, is the subject of constant observation in health and disease. Hence the reason, why the eye is so sure an index of the state of health and disease of the body. Hence its clear, bright appearance, when the harmony of health pervades the general system; and hence its dull, heavy look, when disease has entered the citadel. This similarity of structure and function, can alone explain the great variety of diseases with which the eye is affected. It is the frequency with which this fact is overlooked, that renders their treatment so difficult, and the results so unsatisfactory. There is no organ whose vigour depends more upon the general health of the body than the eye,—none, whose diseases arise more evidently from the derangement of the general health,—

* Beer, *Lehre von den Augenkrankheiten*. [Beer's Treatise on the Diseases of the Eye.]

and none which displays more numerous sympathies with every part of the body.

These important facts present a wide field of thought, which the appropriate limits of this essay forbid us to enter ; since it embraces, legitimately, the whole circle of medical pathology. We must be content, therefore, with a few general deductions, such as appear most important to our present design. It is evident from these cursory remarks, that the man who desires to preserve healthy eyes, and sound, permanent vision, has done but little, and will be in great danger of failure, if he does nothing more than to secure the advantages of proper light, and such periods of time as are most appropriate for study.

Whoever would gain and preserve this blessing, must constantly bear in mind, that the eye is a microcosm ; and neglect nothing that is necessary to the preservation of general health. The vigour of the eye-sight depends quite as much upon that, as upon a proper adjustment of the light by which he studies, and a wise accommodation of his labours to fitting hours. No law of physical education can, with safety, be neglected by the man who is desirous of sound, healthy, permanent vision.

These considerations naturally lead us to the following rules, as among the most important preservatives of the sight.

1. The enjoyment of free, pure air, is indispensably necessary to the preservation of healthy eyes.

Who are the individuals that suffer most frequently from diseases of these organs ? They are the children of want, who are almost of necessity confined in an impure atmosphere. This undoubtedly makes an important item in the account. The daily enjoyment of pure air is absolutely necessary to sound health ; and sound health, while it continues, is one of the surest guarantees of sound eyes. But independently of the beneficial effects of pure air upon the eyes, through the medium of the general health, it exerts a very happy influence upon them locally. It is one of the most agreeable and salutary local applications. Whoever, therefore, is called upon to make great use of the eyes, ought to bear this in mind. He

should carefully avoid sitting a long time in an impure atmosphere. The doors and windows of his study should be daily opened, that it may be freely ventilated. The lights by which he reads or writes, should be of such a kind as do not deteriorate the air of the room, by emitting a great quantity of smoke. He should also daily afford the eyes the benefits of the pure external air.

2. The studious man should, daily and regularly when the weather permits, secure the advantages of such an amount of exercise as is necessary to maintain a healthy, vigorous condition of the body.*

Exercise is absolutely necessary. It is necessary for strength. It is necessary for easy digestion. Above all, it is necessary to maintain an equalized state of the circulation. Nothing contributes more than this to secure the eyes from that determination of blood to the head, to which students are so subject, and which is one of the most common causes of diseases of the eyes. The sitting posture of the studious man constantly tends to excite a determination of blood to the head and eyes, by the bent position of the body which he is often obliged to assume for hours, and which obstructs the free circulation of the abdominal viscera. It excites also by the disproportionate amount of action which the brain is called upon to perform. It is not therefore enough, if he would preserve the eyes, that he takes his daily walk in the open air. He should frequently change his position, while engaged in study, and alternate the sitting for the standing posture. He should also occasionally, during his labours, moderately excite the general action of the vessels, and thereby diminish the tendency to a local determination, by taking a few turns round the room.

While upon this subject, several other circumstances, all tending to produce the same effect, require particular notice. We observe therefore further,—

3. That the student should be particularly careful that no part of his dress is so arranged as to interfere with the perfect freedom of the circulation.

* See the author's Essay on Physical Education.

He must ever remember, that a congested condition of the vessels of the head and eyes, is one of the common dangers to which sedentary men and deep thinkers are subject. He must, therefore, never conform to any of the fashions which may increase this tendency. The cravat, for instance, should sit loosely about the neck. Every part of the dress should be so easy as not to make undue pressure upon the abdominal organs, even though it be at the sacrifice of some of the modern, false notions of taste. It will be at the risk of much good health and good eye-sight, if men of studious habits permit the tailors of the present day to be the supreme arbiters of taste.

4. Let the student, for the same reasons, carefully avoid a confined condition of the bowels. Nothing exerts a more unsalutary effect upon the eyes than this. It lays the foundation for obstructions of the abdominal circulation, and consequent congestions of the head and eyes. Hence the dull headach and heavy spirits of the constipated man. Hence the cloudy vision, so frequently attendant upon this state of the system. Hence also the motes and various anomalous deviations from perfect vision, sometimes amounting to actual loss of sight, which present themselves in the costive man; partly from congestion of the vessels of the eye, and partly from its intimate sympathies with these distant organs.*

Costiveness is the peculiar danger of sedentary men. It is one to which their habits, especially their neglect of exercise, renders them exceedingly liable. Its injurious operation upon the eyes is so great, that it cannot be avoided with too much care. It has undoubtedly unfitted the eyes of many scholars for continued labour; and not unfrequently constituted the principal cause that has numbered others among the blind.

The great pressure and straining that the constipated man is obliged to make in evacuating the bowels, pro-

* The bare mention of the fact, that the *tunica conjunctiva*, a membrane covering the surface of the eye, is a mere continuation of that which is spread over the internal surface of the whole alimentary canal, may serve to impress these truths on the mind.

duces a determination of blood to the eyes, which every such individual must have noticed. Hence the dark appearance before the organ, if the act takes place in the day-time; and the bright orb which floats before them, if it is in the night. It is caused by a crowded state of the vessels upon the exquisitely fashioned retina, a part capable of bearing less pressure with impunity than any other part of the body. Let it be always regarded as a warning, that the eyes are in danger; and that, if proper precautions are not forthwith taken, amaurosis may be the mournful result. Let it also secure the object for which it is now presented—to impress strongly upon the mind of every lover of sound eyes, the immense importance of guarding continually against this dangerous state of the body.

5. Strict temperance is an indispensable requisite for the preservation of healthy eyes. All who devote their lives to hard study, must bear this continually in mind. Whoever aspires after literary honours, or seeks the rewards of learning, must remember that they are to be found only in the paths of temperance. The pleasures of the mind have no concord with the pampering of the body. To what are we to attribute the clear heads of the ancient philosophers? Their works are not the productions of congested brains. Their eyes looked out upon nature with a clear vision, to the end of life. Unlike the students of the present day, they exercised their limbs as well as their minds. They studied and thought in the open air. The brain was not the only organ that was tasked; and therefore, it was not oppressed with the blood belonging to other parts of the body. Again, they were obedient to the wholesome laws of temperance. Therefore, their vessels were not filled, as is the case with too many of our students, to almost apoplectic fullness. Among the multitudes of our hard students, who complain of weakness of the eyes, a vast proportion may attribute the misfortune to a total neglect of these first principles of health. We pity them when we see them growing blind over their books; and are almost disposed to regard it as among the discouragements of learning.

But a closer examination of their history presents a very different result. Our sympathy may grow cool, if we regard them with a more physiologic eye. It is a love of the flesh, more than a love of the spirit, that too often clouds their vision. It is too much food, crowding with unnecessary blood the tender vessels of the retina. It is too little exercise, allowing these accumulated fluids to settle down into fatal congestion. It is positions wholly at variance with the freedom of the circulation; and various other imprudences, which are the result of carelessness or unjustifiable ignorance. "The day-labourer may eat what he will, provided it is wholesome, and his eyes will not suffer. But let the student who is called upon to devote, not only his eyes, but his brain to severe labour; live upon highly nutritious food, and such as is difficult of digestion, and we shall soon see how his vision will be impaired, through the vehement and persevering determination of blood to the head, which such a course must inevitably occasion." So speaks Beer, whose extensive opportunities of observation have perhaps never been exceeded. The daily practice of every observing oculist, is filled with coincident experience.

6. Sleep exerts no inconsiderable influence upon the health of the eyes. To the man whose profession demands constant use of these organs, it is a subject of great importance. The experience of every observing man affords abundant evidence of this truth. The sleep of the night is as necessary to the health of the eyes, as it is to the health of the body. It is one of the great means provided by the Creator, for the daily renovation of both. A constant, diurnal alternation of activity and repose of all the organs of the body, is founded in the necessities of our nature. Of none of them is this more true than of the eyes. Nothing wears down their powers more certainly, and induces a morbid state of sensibility of the retina, than the deprivation of sleep, continued for a sufficient length of time. Few things promote their health more, than regular sleep.—Hence they reason very wrong, who think they gain time, and bring more to pass, when they steal it from the hours of sleep. Those

scholars are best able to appreciate the importance of a sufficient amount of sleep to the eyes, who have been for years indulging the pernicious, unnatural, and unphilosophical habit of pursuing their studies far into the hours of night, and depriving these noble organs of its soothing influences. They can best describe its consequences; for nature has warned them by the watering of the eyes, the redness and heat of the lids, and the sense of oppression about the eye-balls, that they are treading upon the borders of annoying weakness; and that, like Milton, unless they learn wisdom by experience, they may at some future time feel the woes of incurable blindness.

But the eyes may be injured by too much sleep, as well as by too little. This fact is also proved by the experience of those indolent students, who, like the sluggard of Solomon, find their happiness in "a little more sleep and a little more slumber, and a little more folding of the hands to sleep." The red and weak eyes with which they arise in the mornings, prove that immoderate and too prolonged sleep is unfriendly to sound vision, as well as to sound mind. The experience of every one who is willing to give the subject the consideration it deserves, will, while it enables him to avoid both extremes, direct him to the medium rule of health and safety. Its importance, so fully established by daily observation and experience, and also by a multitude of melancholy facts, proves that in common with all the laws of physical education, which exert so manifest an influence upon health, it should not be disregarded by the individual, who is desirous of securing sound, healthy eyes.

IV. In order to secure the advantage of healthy, enduring vision, the eyes must be subjected to a proper and sufficient amount of use or action. Many men daily impair or destroy their eyes by immoderate use; not a few have done the same by too little. The eye is not exempt from the law of the system, which requires, that each organ must be called upon to exercise its natural functions, in order to obtain its full development, and to secure the advantage of its full powers. It was exercise,

action, that developed the muscles of Hercules. No man can expect the eyes of an Argus, unless he subjects them to the amount of action for which they were destined by nature. Oculists daily act upon this principle, when they perform an early operation for cataract, where only one eye is affected with the disease. Although it is unnecessary for the immediate purposes of vision, yet they dare not defer it; because they know that the retina from want of use, is liable to become seriously debilitated; so that at a more distant period, the efforts of surgery may prove unavailing. This important fact is illustrated by many daily occurrences. To this in part, a want of use, may doubtless be attributed the frequent instances of weakness of sight, in consequence of long continued diseases of the general system. It is also illustrated by cases of Strabismus. The squinting eye, after a long continuance of the disease, is always a sightless eye, or nearly so. The patient never makes use of it for the common purposes of vision.

The statement of these facts explains the reason why a total inactivity of the eye occasions debility of the organ. They are sufficient to show that too much repose is one of the most improbable and least philosophical modes of securing strong vision.

Too much use of the eyes, on the contrary, is to be avoided with equal care. How many men ruin their sight by extravagant use! How many gifted men, to whom the church is looking with fond expectation—how many on whom the friends of learning repose with confiding hope, are annually numbered among the weak-sighted and blind by this cause! In our schools and seminaries, how many boys and youth, urged on by a blind ambition, and the folly which is surnamed the “Spirit of the Times,” thus lay the foundation of weakness of sight, which, in after life, destroys half their usefulness, and buries their brightest expectations in the dust! Among our literary men and best citizens, what numbers destroy their usefulness in society, and lay the foundation of bitter disappointment, by deferring, until it is too late, a timely consideration upon a wise economy of the eyes.

Nothing would exert a more important influence upon the interests of religion and learning, especially at the present period of the world, than that just apprehensions of this subject should be disseminated among the studious portions of the community; that its importance should be duly appreciated, and acted upon; and that each one should ascertain the medium path where he may walk with safety.

There is a great diversity in the original power of the eyes. Some are so strong that they are able to endure, through a long life, the most incredible labours. Others are wearied and fatigued by comparatively small exertions. The eyes of some individuals receive a shock from the imprudences of youthful study, before the organs have attained their maturity, and while they are growing; when, like all other organs thus conditioned, they cannot be fully tasked without danger. They never wholly recover from this in after life; and are altogether unfitted by it, for extraordinary duty. In some, the eyes are continually sympathizing with a feeble, diseased frame. Others seem to have iron frames, and consequently iron eyes. Some persons can employ the eyes for days together in the examination of the smallest objects, without the least difficulty; others, on the contrary, cannot endure the same one hour, without excessive fatigue.

It is very evident that the amount of use to which the eyes are subjected, must be varied by these varying conditions. If all attempt the same degree of labour, a certain proportion must fail. The dyspeptic will bend under the burthen, which the day-labourer might carry as an amusement. The amount of study which the eyes of one man are capable of enduring without the least difficulty, will induce incurable weakness or blindness in the eyes of another. It is to the neglect of this simple fact, that we are, in a good measure, to attribute the incredible number of weak eyes among the ranks of our literary men, at the present day.

But happily, amid this great diversity of eyes, modified in power, as they are, by various circumstances and

conditions of the system, there are certain signs resulting from undue use, common to all. A little attention to these will enable each one to ascertain, when he is liable to pass over the bounds of safety, and when it has become necessary that he should begin to relax his efforts, and think of a wise economy of the eyes. They are the following :

1. The focus of vision, (*punctum distinctae visionis*,) is brought nearer to the eye than usual—in other words, it is shorter—so that small objects must be brought closer to the eye than the individual has been accustomed to, in order to obtain distinct vision.

2. There is a sensation of painful distension of the whole region about the eye, especially after continued labour which has been attended with any straining of the sight. This, however, soon disappears, after a short repose from study. Let the student close the eyes, and rest them for a quarter of an hour, and he will feel it no more.

3. When the labour has been of long duration, and accompanied, not only with considerable straining of the vision, but also of the mental powers, in addition to the above mentioned sense of distension, the student perceives an unusual feeling of increased heat ; there is a peculiar warmth of the eye-lids, with a difficulty in raising them, and also of moving the eye-balls with their usual facility.

4. If while labouring with the eyes, he attempts to look accurately at some distant object, they involuntarily fill with tears, or at least are more moist than common.

5. A moderate but uncomfortable headache, more particularly about the region of the eye-brows, accompanied by an unpleasant sense of weight, will be felt during or immediately after labour.

6. If the subject is young and plethoric, in addition to the above symptoms, the edges of the lids become red, and somewhat thickened ; and the conjunctiva, the membrane covering the white of the eye, appears more turgid and vascular than in its usual, healthy condition.

7. Finally, a thin cloud suddenly comes, for a few moments, before the eyes ; objects for a short space appear

confused, and unless the eye-lids are closed, a vertigo follows. The moment, however, that the eyes are opened again, all objects are seen as distinctly as before.

This last mentioned symptom is more common with full, plethoric subjects, after misuse of the eyes, than with others. The wise, prudent man will regard them as premonitory signs, that call upon him to think seriously of taking some measures to preserve the health of his eyes. If he does not—if under the influence of a senseless ambition, of avarice, pride or any other improper motive, he disregards these friendly warnings, and continues to strain and use the eyes,—abused nature will utter a louder voice, in the following additional changes.

8. The circumference of all objects appears to be surrounded by a sort of rainbow halo. They will also seem to be in motion, and suddenly veiled with a troublesome glimmer, which changes its situation very rapidly from above downwards; and as the eye continues to look at objects, they will run confusedly into each other.

From this period, he can go forward no longer with impunity. It is a condition of the eye, which, unless arrested by prudent management, may easily degenerate into a weakness of vision that will unfit the individual for extensive usefulness in life; or terminate perhaps in incurable blindness. He has now arrived at a point, at which all delay is replete with danger; and a continued perseverance in study is downright folly.

He may yet be safe. It is not yet to be considered disease; but a sort of middle state between health and disease; in which such a predisposition to the latter exists, that the smallest exciting cause is sufficient to call it into action. The combustible materials have been prepared and collected together; a spark only is required to blow them into a flame.

In the following directions will be found the surest and speediest mode of arresting its progress, and restoring the eyes to a healthy condition.

1. The student should permit the eyes to have a season of repose. His books, sermons, and papers must be laid aside. He must be deaf to the voice of ambition,

avarice, or pride; nay, the pressing calls of duty, even be they those of the pulpit, must be suspended, or modified. We do not mean, however, by repose, a sudden and total inactivity. This may be as injurious as too much activity. But all extravagant use of the organs must be relinquished. Great and fatal mistakes are often made by ignorance of the physiological principles of the eye, when it is in this condition. The patient has often been shut up in a dark room, until the organs became so debilitated that the smallest ray of light, which is their natural stimulus, acted afterwards, when admitted, like an unnatural stimulus, and occasioned an increase of disease. The repose here meant, would be better accomplished by a change, than by a cessation of labour. Where this cannot be done, let the objects about which the eyes have been exercised, be exchanged for others that are less fatiguing to them, and more agreeable.

2. The eye should be often closed during labour, and a few turns made round the room, or what is still better, in the open air. If this is done only for a few minutes, it will be attended with essential benefit.

3. There is generally in these cases an unnatural determination of blood to the eyes. Some benefit may be derived by exciting a deviation to the feet, by immersing them frequently in warm salt water, or water with which a sufficient quantity of mustard or some other stimulant has been mixed, to occasion a slight irritation or warmth of the skin.

4. Perhaps the best of all remedies would be, to abandon books altogether; to leave the city and the study, and journey in the country; to exchange the confined position of the student for the unrestrained movements of the traveller; to excite the whole body by moderate motion; to wander in the woods and meadows, and refresh the misused organ by the green fields and trees, and the endless alternations of nature's works.

5. The eyes, when in this condition, should never be used at all immediately on awaking from sleep in the morning, after meals, or by candle light.

6. In addition to the above, they should be washed frequently in the course of the day, in cold water; which

is an excellent means of strengthening the eyes. We do not mean, to open them in cold water, as some do. This is a bad practice, and often does injury, by abstracting too much heat from the eye, and occasioning irritability and weakness. Simply washing them with the hand is a better and more appropriate way.*

Such are the simple means necessary to restore the eyes to their original condition ; to avert the impending danger ; and to enable them to return to their ordinary duty. For want of supposed opportunity, through mistaken economy, or from an unwillingness to adopt them, many lovers of learning have been compelled, in bitterness of soul, to retire from its pursuit, and to relinquish all its honours and pleasures. Many have gone down blind to the grave, before half their appointed days of usefulness were fulfilled, little dreaming that loss of vision was only the bitter reward of reprehensible prodigality or unjustifiable ignorance—self-satisfied, perhaps, as martyrs in a glorious cause ; when they should have been humbled at the recollection of a precious talent wantonly abused.

When by the timely adoption of these measures, the eyes have again become sound, too much care cannot be taken that similar imprudence does not again bring them into the same condition. The recovery should make a person more cautious, and not more bold. A second attack or relapse is seldom followed with equal success. Whoever is so unwise as to trespass a second time against the eyes, after the above warnings, should not indulge even that hope, that they will again possess that degree of strength and endurance, which fits them for active, continued labour.

Beer states, that those individuals to whom nature has given brown or black eyes, require more caution in the

* The practice of washing the eyes with cold water, is one of the best known and most invaluable means of strengthening the eyes and preserving the sight. The opinion is very prevalent that it is always useful. But there are states of the organ in which the application of cold water is highly improper, and warm or tepid water would be more appropriate. An ignorant use of it, therefore,

use of their sight, than such as have blue or gray eyes.*
 "Whoever," says he, "has observed for a number of years the very different degrees of power of different eyes, in a great number of men, will find, as I have done, the irrefutable confirmation of the above truth. By a careful collection and comparison of facts, he will arrive at the same strong conviction that I have, viz. that gray and blue eyes will bear, under the same circumstances, much greater straining than brown or black eyes. Consequently, the acuteness and durability of sight is in a very accurate relation to the varying colour of the eyes. Its power always increases in proportion to the degree of lightness of the iris; and on the contrary, diminishes in proportion to its degree of blackness. For example, dark blue eyes support much less expenditure of vision than the gray; and brown eyes can endure much less straining than the dark blue. Every one may easily satisfy himself of the correctness of this universal observation, by the fact that of an hundred men who have black eyes, scarcely one can be found who is altogether contented with his sight; and also, that dark coloured eyes are subject to amaurotic affections; from which light coloured eyes, under the influence of the same exciting causes, much oftener remain free.

"Since there is no general rule without an exception, so here, we sometimes find individuals with gray or blue eyes, which are from the birth very weak; and *vice versa*. But these exceptions are nevertheless very rare, and

might in some cases prove injurious rather than beneficial. To the healthy eye it is always serviceable.—There is very often with individuals who have weak eyes, a peculiar disposition to close the lids, and a difficulty afterwards of opening them again; also an involuntary contraction of the lids, occasioning a sense of pressure upon the eye-balls, with a feeling of heat, itching, and irritability of the *tarsi*. When such symptoms are present, the local application of warm water will produce more grateful sensations than cold, and do more good. There is no need of erring however on this point, if the effects which follow the application are observed. They should always be grateful and pleasant—if not, they may be injurious.

* Pflege gesunder und geschwächter Augen.

do not in the least degree militate against the truth of my assertions."

If such is the fact—and the authority of its author must, upon this subject, be considered very high,—it is certainly worthy of serious consideration; and deserves a place among other cautions upon the subject of the preservation of the sight.

V. There are some very prevalent habits among studious men, by which the eyes are liable to be injured; especially when they are predisposed to debility and inflammation; and which are indulged in without the least idea that they constitute a cause of danger.

1. The first of these which I shall mention, is the practice of rubbing the eyes on awaking from sleep in the morning, in order to relieve the uneasy sensations experienced at that period of the day—the feeling of stiffness and weight, that is so apt to be present in the much used eye. It occasions irritation; produces a determination of blood to the organs; and not unfrequently slight degrees of redness, which, by frequent repetitions, may easily degenerate into troublesome disease. If much force is applied in this way, it may so derange the functions of the nerve, as to occasion permanent and incurable blindness; of which the following case, related by Beer, is a striking and melancholy example. Its relation may not be without its use, in impressing the importance of the above caution upon the mind. "I was once called," says he, "to a man who had enjoyed a remarkable vision, and who, but a short time previous, had suddenly become 'stock blind.' He was in the company of some familiar friends, when a stranger suddenly came behind him, and covered both his eyes with the hands. Now he was to tell who was behind him. Whether he knew or not, I cannot say; but without speaking a word, he endeavoured to free himself from the pressure. But the more he endeavoured, the more firmly did the other press with his hands; until, when they were removed, he found, on opening his eyes, that the sight was for ever gone."

Many cases are on record, and many annually come under the observation of physicians, which exhibit the

injurious and fatal consequences of pressure upon the eyes. It is, therefore, very easy to conceive, that even a moderate degree of pressure, if frequently repeated, as in the above mentioned habit, may not only increase the tendency always existing in many eyes to irritation and inflammation; but may sometimes actually produce it, and lay the foundation of weakness that might otherwise have never occurred.

2. The eyes, especially when they are predisposed to weakness, are not unfrequently injured by exposure to strong currents of wind. Many date the first attack of what they consider serious disease, to this cause. All whose eyes are weak, are rendered uncomfortable by it. It should therefore be avoided, especially by those who are subject to ophthalmic diseases. When it cannot be wholly avoided, such individuals ought to adopt some measures to modify the impression of the wind upon the eyes. A neglect of this precaution has often converted simple weakness into acute inflammatory disease.

3. Another bad habit is the custom of reading while the body is in a recumbent position. It is a lazy posture, as inconsistent with the health of the eyes, as with the graceful propriety of the scholar. The blood, while the body is thus conditioned, flows more readily to the head and eyes, and subjects them to increased danger, especially when the reading or study is combined with mental labour.

4. The eyes are often seriously injured by being put to too early or too great use after the system has been affected with grave and important disease; as acute inflammations of the vital organs, nervous fevers, or any disorder accompanied with great depletion. Such affections often leave the eyes exceedingly debilitated. The convalescence is very slow; time hangs heavily on the hands of the student; he is weary with the labour of idleness; and the temptation to lighten the burden by reading is very strong. But it cannot be done without danger of increasing the weakness of the eyes, and converting it into obstinate if not incurable disease. There is no condition where the safety of the eyes stands in

greater need of all the patience and self-denial of the student. He should not return to study, until the body has recovered a good measure of strength, and the eyes have sufficient power to be used without any uneasy sensation. The best economy of the organs consists in withdrawing them from all study, and exercising them only with such objects as are pleasing to them; in accustoming them gradually to bear a full light, and adopting the use of such measures as are necessary to re-establish the general health. The old adage, "the more haste the less speed," is peculiarly applicable to the eyes, when the body is recovering from the consequences of serious disease. An unwillingness to conform to it, has condemned many to months and years of diminished usefulness.

5. The habit of exercising the eyes in the examination of very minute objects, is also very injurious to vision. Its debilitating and fatal consequences are not unfrequently seen in those mechanics who are continually obliged to strain the sight in this way, in the manufacture and manipulation of very small and very delicate objects. It is this that renders so many of them amaurotic in advanced age. The student who is ever reading small print, is subjected to the same danger. Indeed his danger is greater, since there are few, perhaps none, of the objects about which the former is occupied, that strain the sight so much as the small type of the latter. For this reason, while we rejoice at the abundant facilities for acquiring knowledge, which constitute one of the peculiar features of the age, we cannot help regretting the multiplication of books printed with very small type, as among its dangerous errors. It has made our eyes ache and water, to see the spirit of a dozen reviews crowded into the narrow space, formerly needed for one. Much as we should rejoice to know, that the poor student, for a small pittance of his earnings, can secure an amount of literature, once attainable only by the more favoured sons of fortune,—yet when we consider the unspeakable value of sound, permanent eye-sight, we feel that the privilege may be purchased at too high a price. The constant habit of reading very small print, is dangerous to strong eyes. To

weak eyes, it may be fatal. It should therefore be carefully avoided.

6. The use of green glasses, so common of late among those who have weak eyes, is another bad habit, wholly contrary to the nature of the organ, and to the true principles of treatment in such cases. Their very general adoption is probably founded on the fact, that nature has spread this colour so profusely through her works; and the very natural inference, that the colour provided by her, and so eminently beneficial to healthy eyes, must of necessity be useful to those which are weak. It has been proved, however, by the experience of thousands, that this opinion is incorrect. Instead of diminishing weakness, in a vast proportion of cases, they increase it. They throw a sombre, melancholy, and disagreeable hue upon all objects, wholly unlike nature's soft and pure colour. The eye is strained by them. When they have been worn for a long time, its sensibility becomes morbidly elevated, and it is unfitted to bear the light, which is its natural, healthy stimulus, without uneasiness or pain.

They are only useful, when the individual is obliged to be exposed to a bright glare of light, for any length of time, which cannot be moderated in any other way; as in travelling over snow when it is highly illuminated by the rays of the sun, or in sailing upon the water, where he is subject to the dazzling and dangerous reflections from its surface. The weak-sighted therefore should only have recourse to them on these and similar occasions, and beware of crippling his eyes by their continual employment.

7. Among the habits of students, which exert an unfavourable effect upon the eyes, the use of tobacco ought not to be passed over unnoticed. There can be no doubt, that this powerful poisonous narcotic, is highly detrimental to the health of sedentary, studious men. It has been stated by writers, that it exerts no inconsiderable influence in the production of amaurotic affections. When its debilitating effects upon the nervous system generally, are considered, we see no reason why the retina, that most exquisitely delicate nerve of the eye, which is allied to

all the other nerves of the body by such intimate sympathies, should not partake in the infirmity produced by this disgusting practice. One thing is certain, that of the vast number of amaurotic patients annually presented to the observation of medical men, a great proportion of them indulge in the use of tobacco. It may do for the sailor, and the day-labourer—for most of the duties of their lives are, in some sense, a practical fulfilment of the principal laws of physical education, which ever tend to strengthen the system, and fortify it against the encroachments of nervous diseases. But it is far different with the student—all his habits are sedentary. His modes of life present a continual series of temptations to break these laws; and render his nervous system peculiarly liable to be injured by all unnatural and unnecessary stimuli. Many other important reasons might be urged against this practice. But the bare possibility that the above opinion may be correct, will be sufficient to the lover of good eyes. “*Sat verbum sapienti.*”

8. Before leaving this branch of our subject, let me warn my readers against another practice that has aided in the destruction of thousands of eyes. It is the ignorant and injudicious use of eye-waters. None know the amount of this evil, except those physicians who have had extensive opportunities of observing the diseases of the eyes. It is so great, and its consequences are often so melancholy, that the very word eye-water occasions pain almost as often as it meets the ear of an intelligent oculist.

When from neglect of any or all the above directions, the eyes have become weak and irritable, crowded with blood, and requiring only a little more action to run on to serious disease, nine men out of ten, nay, nineteen in twenty, have an unhesitating recourse to some nostrum, which goes under the name of an eye-water. In other words, they use some stimulating application, whose only legitimate operation is to give additional irritation to parts already too much irritated. Under its employment, as might be expected, disease increases. But the ignorant notion is so prevalent among high and low, rich

and poor, the wise and the unwise, that a diseased eye cannot be cured without eye-water, that it is commonly the least suspected cause of difficulty. Men abandon that trusty friend, common sense, in diseases of the eyes, as they do on many other subjects. The singular dependence on the use of eye-waters in the diseases of the eyes, is so universally embraced, that it will perhaps be one of the last of the follies of the dark ages that will be abandoned.

The indiscriminate employment of these as a remedy, is, in nineteen cases out of twenty, unscientific and unphilosophical; and wholly at variance with the simple principles of disease. The experience of every sensible observer proves, that in an equal proportion of cases, they produce or keep up disease, instead of alleviating or curing it. Among the host of specific eye-waters, in such general use, there is not one that has not done infinite harm. There is no specific for diseases of the eyes; I had almost said, for any other disease. The only rational mode of treatment in these, as in all other diseases, is that which looks to their causes, and removes them; and afterwards applies such remedies as are in accordance with the simple, philosophical principles which regulate the removal of disease in all other organs. To trust to such means, therefore, when the eyes begin to be diseased, is to lean upon a broken staff. To lose time by such trust, while the causes of disease continue, and to neglect the only proper remedies, is to trifle with one of heaven's best blessings; and perhaps, to squander a gift that may never be regained.

The practice of every physician who has possessed opportunities for observation, is filled with the melancholy consequences of this prevailing error. Since the interests of religion, science and humanity depend so much upon the eyes, perhaps no better service could be rendered to them, than a history of eye-waters, with a full exposure of all the mischiefs they have occasioned, as universally prescribed by the hands of old women, grave divines, lawyers and doctors; and a general diffusion of correct ideas upon the principles of their employment,

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in the very few cases for which they may be considered appropriate remedies.

Among the various nostrums vended and used under the name of eye-waters, to the injury or destruction of much good vision, there is one, however, which forms an exception to the above reprobations, and which, should it supersede all others, and be introduced into the same general practice, would doubtless, till the people gain a better light, prove a blessing. This is the famous Paris collyrium.* “An old lady of Paris, whose husband had become famous for an eye-water, had the misfortune to lose her spouse and his secret together. In this dilemma, harassed by applications for the nostrum, she had recourse to the water of the Seine, and was not more gratified than surprised, to find that the collyrium had lost nothing of its virtue. After having enriched herself by a successful traffic, it so chanced that she fell sick; and conscience-stricken at the prospect of death, she applied to an eminent professor of surgery instead of a priest, to relieve herself of the burthen of sin with which her soul was encumbered. ‘Soyéz tranquille, mon amie,’ said the professor, ‘de tous les medecins vous êtes le plus innocent: vos remèdes n’ont fait du mal à personne.’”

From the above observations the following important inference is drawn, viz. The student whose eyes are affected, should never use a collyrium stronger than good river water, without the counsel of some skilful, well-informed physician.

VI. It is a well known fact, that the distinct vision of near and remote objects requires corresponding changes in the conformation of the eye. One office of the muscles attached to it is to effect these changes, in order to adapt it accurately to the ever varying distances of objects.

That such changes actually take place, however unconscious the mind may be of them, is proved by many facts which come under our daily observation. This explains the reason why, when several objects are placed

* Travers on Diseases of the Eyes.

at different distances before us, they do not appear equally distinct at the same time, though both may be in the same axis of the eye. It also accounts for the fact that distant objects appear indistinct and somewhat confused, when we first look at them, after the eyes have been attentively occupied in examining minute objects, and *vice versa* ; though by continuing to look at them, they soon present their ordinary distinct shape and appearance. It explains also the fatigue experienced by looking intently at minute objects. It is because the muscles of the eye are wearied, like all other muscles, by intense and long-continued contraction.

It is a law of the muscular system that its power, facility, and readiness of action are increased by exercise, and diminished or finally lost by disuse. Hence the difference in the size and agility of the muscles of the day-labourer and dancing-master, and the studious, sedentary man. The muscles of the eye are under the influence of the same law. The more they are used, the greater the sphere of activity which they acquire. When they are seldom or never used, they become weak and rigid ; and are finally incapable of strong, vigorous action. Like all other muscles, too, they become best fitted for that kind of action to which they are most accustomed, and less for an opposite action. Hence the eyes of the student who is continually poring over his books, are best calculated for seeing near objects distinctly ; while the eyes that are continually exercised in examining distant objects, are least fitted for the distinct vision of such as are near and minute. This is the reason why sailors, for example, are generally long-sighted ; and watch-makers, students, &c. are so apt to be short-sighted.

These facts are by no means unimportant ; since they lead us to another direction which may be of some consequence in preserving the sight. It is this. The student whose duties oblige him to be for the most part intently occupied with his books, should not neglect to exercise the eyes also in the examination of distant objects. He should guard against poring continually, or almost without intermission, over his books and papers ;

and occasionally look abroad upon more distant objects. When his circumstances permit, let him select a room for his study which is provided with a distant view. By looking out upon this, and exercising the eyes alternately in this manner, he will in the best and most agreeable way relieve the muscles from the fatigue of continued action ; preserve them longer in a natural, perfect state ; and diminish the danger of being obliged to have too early a recourse to the aid of spectacles.

But whatever care has been taken of the eyes, however judiciously they may have been managed, they must, after a certain period, begin to be imperfect. As age advances, one of its inevitable consequences is a change in the conformation of the eye, which will, in some measure, impair vision. With the progress of years, its humours diminish, its form becomes flattened, and the pupil grows narrower ; so that the image is removed to a greater distance from the retina ; less light is admitted to the eye ; and the muscles have not sufficient power to adapt it to the difficulties of its new condition.

Happily, art has provided an admirable remedy for this difficulty, in the invention of spectacles ; by which the student may continue his labours and prolong his usefulness.

Some incorrect opinions prevail respecting the period when recourse may be had to the aid of spectacles. Many, influenced by these opinions, have seriously injured vision by deferring them too long. Not a few have laid up cause for repentance by using them too soon. It is therefore important to lay down some directions, by which each one may determine with accuracy the rule of safety, and ascertain with correctness when his sight may be assisted by spectacles.

The proper period is various in different individuals. Some men require them in very early life. Others enjoy perfect vision without them even to old age. Therefore the question cannot be determined, as has been supposed, by the number of our years. Whether they are to be used earlier or later, depends upon a variety of cir-

cumstances, upon the original structure and conformation of the eye, upon the care with which it has been managed, upon its wise or unwise use in youth, and upon a great number of peculiarities and diseases, ever varying in a thousand different degrees, in different individuals.

But fortunately, whatever are the precise nature and variety of these, there are certain signs uniformly presented in every case, by which each person may determine accurately the precise time when the use of spectacles will be consistent with wisdom and the preservation of his sight. They are the following.

1. The focus of vision is farther removed from the eye. In other words, in order to see small objects distinctly, they must be removed farther from the eye than the student has been accustomed to view them. The usual length of this focus of vision in a sound, healthy, perfect eye, is from sixteen to twenty inches.

2. More light is required than formerly for distinct vision. Hence the habit of old men, of holding the candle between the eyes and the paper when they are reading.

3. Very small objects, when they are closely examined, appear confused, and run into each other. This is especially the case when they are of bright, brilliant colours.

4. The eyes are very easily fatigued by slight efforts and straining, which would not have affected them previously. There is a sense of weariness on viewing near objects, with watering of the eyes, and headach, and sometimes redness of the eyelids—so much so that there is a necessity of directing them frequently to other objects, in order that they may obtain repose.

5. The sight is generally weak on awaking from sleep, and does not fully recover its accustomed power until some hours after—until it has been, in some degree, aroused by the action of light and air.

6. There is always more difficulty in reading small print by candle light than by the light of day.

Whenever any or all these signs are present, the assistance of spectacles is not only proper but necessary. The prevalent opinion, that the longer they are deferred,

the longer the vision will retain the strength of youth, is a mistake. It is a mistake, which has often brought extreme old age prematurely on the eyes. As soon, therefore, as the eye has become sensibly flattened, and the above mentioned inconveniences arise, not a moment should be lost. This is especially important to the studious man, who is obliged to use the eyes much. It is to be considered the voice of nature calling for aid. Either study must be relinquished, or the aid provided; otherwise the eye will be seriously injured by the increased efforts which have become necessary for distinct vision.

Many persons thus injure the eyes by deferring the use of spectacles too late. But this is not the only mistake that is made. They may be also seriously injured, and premature old age induced, if the glasses are not properly adapted to the actual condition of the eyes. If the glass is bad, in other words, if it be not accurately conformed to the actual condition of the eye, the vision will be in greater danger of being injured with it than without it.

Let the principle then be well understood. Many mistake by obtaining glass of too great magnifying power. But this is wrong. A proper glass is not one which magnifies the object, but which presents it as nearly as possible of its natural size—which shews it in a clear, distinct manner, and at the same distance at which the person was accustomed to distinguish objects when the eye was in its most perfect condition. The lens is always too convex, if, in order to procure distinct vision, the object must be brought nearer to the eye than before the sight became impaired.

By bearing in mind the natural length of the focus in a perfect eye, we may always find the safe rule. It is, as before observed, from sixteen to twenty inches. That glass is proper which enables us to read fine print, or which procures easy, distinct vision, at about that distance, and improper when it departs much either way from it. The surest proof that the glasses are too convex, is when the book, for distinct vision, must be brought nearer than

formerly to a sound, healthy eye, *e.g.* eight or nine inches. Let the glass always be selected on this principle and no other. From ignorance of it, or from inattention to it, many have weakened vision and deprived themselves of the blessing of years of useful labour. If glasses of too great magnifying power are chosen at first, the eye will endeavour to accommodate itself to an improper focus, and become so much flattened that it will be difficult, sometimes impossible, as age advances and the sight grows more imperfect, to find any spectacles which will benefit. On the contrary, if they are selected on a right principle, if the focal distance is sufficiently long, so as only to relieve the sight and render it natural, it sometimes happens that the individual is able in future life to diminish rather than increase the power of the glasses, and at last to give up the use of them altogether.

Short-sighted persons require also the assistance of glasses; and by a judicious choice, these will, on several accounts, aid the preservation of the sight. They prevent the straining of the eyes, and save much unnecessary labour. They enable a person also to avoid the unfavourable position of the body and head, which the short-sighted man is obliged to assume; and which renders him more liable than others to congestion of blood about the head and eyes. The following are the signs by which he may determine whether he needs the aid of glasses.

1. There is inability of distinguishing small objects, as common print, at the distance of fifteen or twenty inches; and larger objects, at two feet distance from the eye.

2. There is a disposition to keep the eye-lids half closed while looking at distant objects.

3. The short-sighted man distinguishes near objects in twilight, better than other men. He can read the finest print, for instance, with facility, when the long-sighted man, whose eye is sound, is unable to distinguish the capital letters.

4. He feels a sense of weariness, straining and distension of the eye, by a long examination of distant objects.

With the existence of these signs he should not delay the use of spectacles,—but, like the long-sighted student, he should be careful to make a judicious choice, and select such as are exactly suited to the actual condition of the eye. The glass should never be so strong as to diminish the size of objects, but merely to represent them clearly, distinctly, and of their natural size. If they are not selected according to this principle, they will increase the short-sightedness, strain the organs, and augment instead of diminishing the weakness.

The long-sighted man, as already observed, will perform an essential service to the eyes, by accustoming them, as he advances in age, to the frequent examination of minute objects. The short-sighted man, for the same reason, should be accustomed to the examination of more distant objects. By these means, each will diminish the tendency to an increase of the changes, which are ever taking place, in the course of time.

Such are the principal facts necessary to be mentioned here. There is much other valuable information in books upon this branch of our subject, well worthy the attention of those whose eyes are the subjects of either of the above mentioned imperfections, and which, if well understood and obeyed, will essentially promote the preservation of the sight.*

Great complaint is often made among students, and especially theological students, of the injurious effects of Greek type and Hebrew points. Since they have been frequently regarded as the chief origin and cause of diseases of the eyes, they seem to demand a few observations in this place.

With respect to the former, I would barely remark, that if the type of the author and of the lexicon is sufficiently large and clear, there seems to be no good reason why the study of the Greek language should occasion injury

* Consult Wells and Adams on Vision; Kitchener's popular little work on Economy of the Eyes; Winkler on the Preservation of the Sight, on Optical Principles; and various others.

to the eyes. But while Polymicrian editions of the Greek classics, and such copies as those of Schrevelius' Lexicon are in use, we may expect that weakness of the eyes will be the inevitable consequence. Let the student expend his money wisely, in the purchase of such text books as are printed with a clear, handsome type, and he will not be compelled to suspend his studies for want of sight, and obliged to repeat to himself in bitterness of heart, as he looks over his miserable, closely crowded volumes, the old maxim, "Penny wise, and pound foolish."

Perhaps I may be allowed to suggest, with all due deference to the scholarship of the present day, another cause, to show that the study of the Greek language, is not, as the lawyers say, *malum in se*,—not necessarily hurtful to the eyes. There is nothing more trying to the sight than to be for ever learning—in other words, nothing is more difficult than the practice of a half formed habit; which, through want of application or energy, on our part, never becomes natural to us. What is more difficult, for example, than to be practising a half learned tune, or attempting to sing an air of which we know next to nothing?

I suspect this principle may be applied to the subject before us. The student often does not become sufficiently familiar with the Greek to read it with ease. This at once explains the mystery. Obligated to pore over a certain quantity every day; to examine words with which his eyes are but little acquainted, and his heart still less—continually shifting his eyes from the page to the lexicon, and from the lexicon to the grammar; his mind, in the meanwhile, perplexed, provoked, and feverish—no wonder that his eyes grow weak! A thorough scholar is delivered from much of this drudgery. At the commencement, when he begins the study of the language in youth, he proceeds gradually, and makes steady but gentle progress; until, at length, the Greek letters are as familiar to him as those of his mother tongue.

This leads me to mention another cause, which, though unsuspected, may occasion weakness of the eyes. Many

of our young men fit themselves for admission to the university in a hurry. Almost every thing is done in a hurry in our country; perhaps nothing more so than the business of education. Thus they are compelled to study day and night, in order to be prepared for the approaching examination. Eyes that have been accustomed to but little use, are suddenly called to steady and laborious action. Can any one be surprised at the result, that such immoderate use of the organ should weaken it? And how easy and natural the inference, since the mode of preserving the sight has been such a neglected subject, that a full amount of the blame should be thrown upon the Greek type! The wonder is rather that so many escape uninjured, than that here and there the eyes of a student are made weak and become unfitted for labour.

Those who are fond of the study of the Greek literature, may undoubtedly injure the eye-sight by immoderate reading, however familiar their eyes may be with text; just as one who is fond of novels, or any other reading, will weaken the organ by reading too long, by an improper light, immediately after meals, &c.

This word meals, suggests another cause of weakness. Some students, who are in the habit of postponing their studies till the last moment, when the recitation, for instance, is to take place in the afternoon, will go immediately from dinner to their books. If instead of such procrastination, they could be persuaded to become familiar with the lessons a day or two beforehand, so that an easy review at this unfavourable hour might be substituted for hard study, the eyes would be less injured, and their progress in knowledge more sure and rapid. All good rules seem to harmonize to produce one result. Their eyes and their minds, if this improvement were adopted, would be strengthened.

So much for the Greek. We cannot believe that the study of it is peculiarly injurious to the eyes. Hundreds, whose eyes appear to be originally possessed of no extraordinary strength, are in the daily habit of reading it with impunity. The injurious effects, therefore, which are at-

tributed to this, should be ascribed to some of the other causes above mentioned. Were it studied wisely, acquired gradually, learned thoroughly, and not in a hurry; were the type of sufficient size, and not read by improper light, we should probably hear little complaint of the dangerous consequences of the study of the Greek language.

With regard to the Hebrew, having never studied it, I can speak only from analogy and observation.

From a slight examination of the Hebrew text, which indeed appears to an unpractised eye "horrible and grim," I should say that the language ought to be studied by beginners with great care. I apprehend that much evil has been created by the neglect of this rule. I have been informed that the young men who enter the Seminary at Andover, are much in the habit of making the study of the Hebrew, which is preparatory to their examination for admission, the work of only a few weeks. Hence, they are no doubt hurried. Sufficient time is not allowed for obedience to the good old maxim, "*festina lente*." They pursue their studies perhaps to a late hour of the evening, or directly after meals. That which should have been the work of months, is made the work of a few days. No wonder that the eyes by such unwonted action, are strained and weak!

Hebrew points doubtless require a closer attention than the common English letters. Yet there is nothing in them peculiarly calculated to injure the eye, if a knowledge of them is acquired slowly, if the period of study is at first short, and lengthened gradually.

From an observation of facts also, I should conclude that the study of Hebrew is not necessarily hurtful. So far as I can learn, the best scholars in that language are not troubled with weakness of sight.* Unless then those who complain of Hebrew, can prove that some idiosyncrasy exists in their power of vision, rendering them ex-

* This is certainly true of the most distinguished scholars in Europe and America.—ED.

ceptions to the rule established by this fact, they must attribute their weak eyes to some other cause than the Hebrew.

Perhaps they will find, on a more impartial examination, the real sources of evil in some of the above mentioned causes of weakness. No man whose eyes are originally weak, or injured by disease, can expect to put them to great use in the study of any dead language, with impunity. Neither if his knowledge of Hebrew is slight and superficial, so that the text always appears a mystic page, or if it has been studied at improper times, or too intently, or while neglecting the general health, is it fair that its little points should be compelled to bear the blame. It is a maxim in law, that every man is innocent until proved guilty. And while so many other causes of mischief are implicated, Hebrew points may well be acquitted under this equitable rule. Especially if some of the best scholars stand ready to give in their evidence, and testify that the Hebrew language is inoffensive to the eyes, its character must go clear, notwithstanding the complaints of other men.

Let the language be more thoroughly studied—let the eye be made perfectly familiar with it, (and to this end the mind must be master of it,)—let the rules laid down for the preservation of the eyes, in their ordinary every day use, be observed with care; and I should not be afraid to prophesy, that the reproach will ere long be wiped away from the Hebrew—and that it will cease to be regarded as one of the decided enemies of strong and healthy vision.*

* In a note accompanying the manuscript, the author remarks: "It is certain that not a few of the young men from Andover, who have applied for advice, confidently attributed all the woes of their poor eyes to Hebrew; though it never appeared to me so much to be blamed, as costive bowels, want of exercise, and various other mistakes and follies." If it be indeed the peculiar forms of the Greek and Hebrew characters, which thus occasion weakness and diseases of the eye, we must of course expect to find the Greeks and Jews, and also the Arabs,—or at least the learned among these

We have thus, in a very general manner, attempted to go over this important subject. We have endeavoured to explain the principles upon which the light under all circumstances is to be regulated, so as best to suit the labouring eye; to shew the periods of the day in which the organ may be used with the most advantage, and the least danger of injury; and the amount of labour to which it should be subjected, in its varying conditions in different individuals. We have adverted also to its inseparable connexions, and consequent sympathies with the general system; and pointed out some of the important rules necessarily arising from those connexions. We have alluded to some of the bad habits in which students indulge, to the great injury of the eyes; and directed the attention to some of the plain simple means, prophylactic and remedial, which were naturally presented by the views that have been taken of the subject.

If we mistake not, the secret but least suspected causes of much of the suffering and privations of studious men from weakness of the eyes, may be found in the neglect of some of the above principles, or the indulgence of some of the above mentioned errors.

It is obvious that the present occasion has only permitted a very superficial examination of the subject. Its vital importance to the cause of literature and religion demands a more thorough investigation. But perhaps enough has been said, to impress the mind with its importance; and to induce some who may read these pages, to give it the more accurate examination which it deserves.

nations,—the victims of these maladies, a sore-eyed, blinded race. The fact, however, is just the reverse; and we may therefore properly acquit the Greek and Hebrew letters of any intrinsic malignity. The truth seems to be, that any species of characters to which the eye is unaccustomed, and which therefore demand a closer attention than ordinary, tend in a greater or less degree to strain the eyes, and thus ultimately produce disease. Thus a page of *Italic* is read with much less facility than one in ordinary type; the eye must rest upon it with more intentness, and may thus be overstrained; in the same way that the eyes are strained by the exertion requisite in order to read at twilight.—ED.

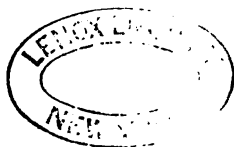
In conclusion, we would urge this as a solemn duty upon all who regard their individual happiness, or desire to render their usefulness as extensive as possible, by bringing all the powers which God has bestowed upon them, into full and permanent activity. Especially is this duty binding upon the clergy. They, be it ever remembered, "are not their own, they are bought with a price." They profess to be devoted "body and soul to the service of the Lord." They therefore, above all men, are least excusable, if they wantonly suffer any of these powers, from ambition, neglect, or unjustifiable ignorance, to be squandered or lost.

THE
CONNECTION
BETWEEN
GEOLOGY AND NATURAL RELIGION.

BY EDWARD HITCHCOCK,
PROFESSOR OF CHEMISTRY AND NATURAL HISTORY IN
AMHERST COLLEGE.

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THE principles of geology have long been regarded not only as hostile to revealed truth, but as favourable to atheism. "It is manifest," says a very able and violent assailant of this science, "that the mineral geology, considered as a science, can do as well without God, (though in a question concerning the origin of the earth,) as Lucretius did."* And the geologists must indeed confess, that a number of their ablest writers some time ago, such for example as Hutton, did, intentionally or unintentionally, gave a quite atheistical aspect to some of their most famous theories. And some of them at the present day, exhibit in their works so entire a neglect of every allusion of a religious character, as to excite pain in every pious mind, and lead many to the conclusion that geology must be the favourite resort of irreligion: for if in this department of creation the same evidence of Divine Wisdom is exhibited as in other parts of the

* Penn's Comparative Estimate of the Mineral and Mosaical Geologies.

temple of nature, how is it possible that a man should devote his life to a description of its beautiful arches and columns, and yet make no allusion to the great Master Builder !

Under such circumstances it will do no good for geologists to deny the irreligious tendency of their favourite science, unless they can show positively that it contains principles of a contrary tendency. Hitherto they seem almost without exception to have felt that nothing was required of them, but to show that atheism and infidelity do not naturally and necessarily spring from its principles. But it seems to us to be high time for them to show that influences favourable to religion may be derived from their science. And we apprehend that it will be no difficult matter thus to invert the tables. We propose to undertake the task : and hope to show that the student of natural theology will find the records of geology no unfruitful source of evidence as to the existence, perfections and plans of Jehovah. The bearings of this science upon revelation we pass by for the present, and propose to consider only its relation to natural theology.

The evidence of the Divine Existence that strikes most minds with the greatest force, is the mathematical adaptation to one another of the various parts of creation, and the consequent proportion and harmony of action between them. Hence geology cannot be regarded as affording at first view much palpable evidence of a Deity. For we are struck, on examining its records, with the marks of disorder and ruin which the crust of the earth and its surface exhibit. Everywhere is seen the evidence of violent agencies in former times, now dislocating the solid strata, elevating mountains, and pouring forth volcanic matter over the surface, and then anon sweeping that surface with deluge after deluge of tremendous power. The observer, who is accustomed to look on the regularity and harmony of the heavenly bodies, and the perfect adaptation to one another, and the harmonious action of the organs of plants and animals, as proof of the existence and wisdom of a First Cause, fancies almost that he sees in the irregularity and unbridled violence of

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geological phenomena, the agency of an antagonist cause ; or rather, the operation of blind chance. Hence it is that geologists have found it necessary to vindicate their science from the charge of atheistical tendencies. But as has often been the case in other sciences, a more thorough acquaintance with geology is beginning to make it manifest, that the confusion and violence apparent in the strata, are only necessary parts of a great and beautiful system of order, by which the universe is sustained. We are beginning to find that disorder and confusion respecting this subject, exist rather in our own limited understandings than in the crust of the globe : Or rather, we begin to see how, in the vast plans of the Deity, he brings order and harmony out of apparent confusion and chance.

“ From seeming evil still educing good,
And better thence again, and better still,
In infinite progression.”

Some unexpected revolutions of this kind we hope to be able to point out in geology : And if they furnish less striking proofs of the divine existence, they afford more striking illustrations of the attributes and plans of the Deity, than those cases where design and harmonious adaptation are obvious at first sight.

In the first place, geology furnishes evidence of direct and repeated acts of creative power.

That the temperature of our globe in early times was much higher than at present, is a fact most firmly established. Indeed, very few geologists now doubt but that this heat was then so great as to melt the great mass of the globe. In the progress of ages this high temperature has been reduced to its present condition. and other changes have been meanwhile advancing. Nor can it be admitted, as some theorists suppose, that these changes constitute a revolving series, to which there is no proof of a beginning, no prospect of an end. For the crust of the globe does not exhibit evidence of more than two or three permanent states before the present : while the history of extinct animal and vegetable natures, shows, in these successive conditions of the globe, a progress to-

wards perfection. Hence we reasonably infer, that our planet had a beginning. And we infer the same from the fact, that an intensely heated globe could not have existed eternally in that condition; since it must have begun to radiate heat at the first. True, the existence of the matter of the globe in a different condition, previous to the time when all the changes which it now presents commenced, is possible. But until the evidence of such a previous state can be discovered, it is certainly philosophical to infer that it was then created out of nothing.

This inference derives support from another fact, which seems to be too clearly established to admit of doubt; viz. that during the changes which the globe has undergone, since its original production out of nothing, several destructions and subsequent new creations of animals and plants have taken place. Most geologists suppose that they can trace in the organic remains contained in the rocks as many as four or five distinct epochs of ruin and renewal; that is, whole groups have been at once swept from existence by some powerful catastrophe, and their places supplied by other races called into existence by the creative fiat of the Almighty. Some geologists, however, suppose that the species have gradually become extinct, without a special catastrophe, just as species do now occasionally disappear from particular countries and even from the face of the globe: an example of which is the *Dodo* of New Holland. But all writers agree that a vast number of species of plants and animals, some of them of enormous size, which formerly flourished, have disappeared. Imperfect and limited as our knowledge of organic remains must yet be, the most recent catalogues contain not far from 6000 species; not more than 600 of which can now be found alive on the earth. And indeed, it is rare to find a single species, and but few genera, identical with those now living, as low down in the series of rocks as the secondary class: so that it is only in the superficial gravels and clay beds which cover the earth's surface, that we find existing species; while nearly all those found in the solid rocks, have disappeared,

and other tribes have taken their place. And although there is some disagreement among geologists, as to the number of entire changes that have taken place in the earth's inhabitants, yet all agree that some such renewals of animal and vegetable life have occurred. The tertiary formations, for instance, contain not a single species that is found in the secondary rocks immediately beneath them. And some of the secondary groups of rocks that are somewhat separated from one another, contain not one species that is common to both.

Now is it possible to explain these facts, without admitting repeated acts of creative power to have taken place since the original production of the earth out of nothing? If the present races of animals and plants existed on the globe from the earliest times, it is incredible that none of their remains occur in a petrified state. The fact is, as the records of geology abundantly testify, that such was the condition of the globe in those early times, as to temperature and in other respects, that our present races of animals and plants could not have existed then. On the other hand, such was the nature of these primeval beings, that they could not live now: so that there is no probability that many of them, if any, will yet be found in the deep recesses of the ocean and of unexplored continents. We are forced then to the conclusion, that new creations of plants and animals must have taken place in past ages; their natures being adapted to the different conditions of the globe at different periods.

The recently developed principles of comparative anatomy—an indispensable auxiliary to geology—throw new light upon the subject of successive creations, and establish the conclusions above made. They teach us that so exactly balanced are the different species of animals among themselves, and so nicely adapted are their constitutions and habits to the surrounding elements, that such as are found entombed in the rocks, being so unlike in their structure and habits to those now living, could not have had a contemporaneous existence; but must have formed several distinct groups; living on the globe while it was in widely different conditions as to temperature, sur-

face, and vegetation. "Whether we make the most superficial or most profound examination of animals in their natural state," says Sir Charles Bell, "we shall find that the varieties are so balanced as to ensure the existence of all. This, we think, goes far to explain, first, why the remains of certain animals are found in certain strata, which imply a peculiar condition of the earth's surface; and secondly, why these animals are found grouped together. For, as we may express it, if there had been an error in the grouping, there must have been a destruction of the whole; the balance which is necessary to their existence having been destroyed."*

Language is sometimes used by distinguished naturalists of the present day, which may be understood to imply (though I exceedingly doubt whether such is their actual belief,) that there is in the laws of nature a power for the production or creation of new species of animals and plants, as well as for the extinction of old ones. "The hypothesis of the gradual extinction of certain animals and plants, and the successive introduction of new species," says one, "is quite consistent with all that is known of the existing economy of the animate world."† "The obliteration of certain forms of animal life (and perhaps the creation of new ones)" says another, "appears to be dependent on a law in the economy of nature, which is still in active operation."‡ No special Divine Agency is represented in such passages as any more necessary for the production of new species, than for the extinction of old ones; which we know may be the result of natural operations: and here lies our objection to such statements. For the production of new forms of animal and vegetable life must be regarded, as it ever has been, as the highest and most astonishing exercise of creative power: and if that power can be supposed to reside in the laws of nature, it seems to us that there is no phenomenon in the universe that will require a higher power: and we are

* Mechanism of the Hand, p. 38.

† Lyell's Principles of Geology, Vol. III. p. 30. London, 1833.

‡ Mantell's Geology of the S. East of England, p. 357. London, 1833.

reduced at once to materialism and atheism. We are aware, indeed, that modern researches concerning the production of some of the lowest tribes of animals and plants, show a very remarkable connection between the play of chemical affinities and the mode of existence; so that the same matter subjected to different chemical agencies, will produce different forms of existence.* But in all these cases, both vegetable and animal life are in their lowest forms of developement; and even here (much less in more perfect animals and plants,) there is not the least evidence that the vital principle is ever communicated by any other power than that of Almighty God. The kind of life which he imparts may vary with the chemical constitution of the material organization, without proving at all that he has resigned the power of bestowing vitality into the hands of nature. "Every thing," says the distinguished anatomist whom we have already quoted, "declares the species to have its origin in a distinct creation, not in a gradual variation from some original type; and any other hypothesis than that of a new creation of animals suited to the successive changes in the inorganic matter of the globe—the condition of the water, atmosphere and temperature—brings with it only an accumulation of difficulties."†

It is the opinion of not a few distinguished naturalists, that the history of the distribution of the species of animals and plants on the earth, renders it certain, that if over the whole globe they were destroyed (except those in the ark,) by the last deluge, a large proportion of those now existing must have been created subsequent to that event. And we really do not see how such a conclusion can be avoided; although we have no time to develop the subject in this place. Nor can we stop here, even were it relevant to the subject, to show that such a view is easily reconcilable with the Mosaic history. We only remark, that the numerous extinctions and renewals of animal and vegetable life that had taken place on the globe previous

* Lindley's Natural System of Botany, p. 326 et seq. New York, 1831.

..† Mechanism of the Hand, p. 115.

to this last catastrophe, afford an analogical argument that this also might have been succeeded by a similar exhibition of creative energy. The cases already adduced from the earlier history of the globe, of successive creative acts, render it unnecessary, however, to resort to any example at all problematical. The subject, however, is so full of interest that we may resume it at a future time.

The mathematician, Dr Hutton, could see nothing in the revolutions which the crust of the globe has undergone, but an eternal series of changes, where the two antagonist principles of fire and water have been in ceaseless operation; the latter to wear down continents and convey their detritus to the ocean, and the former to elevate new continents from the deep. In the mechanism of the heavens he thought he saw a correspondent series of revolutions, in which those very disturbing forces that seemed to threaten ruin to the system, by acting periodically in different directions, are made to give to the movement of the planets unending permanency. Thus he excluded all evidence of a creative and superintending agency from astronomy and geology; and this atheistical view of these sciences seems to have been but too generally admitted. But, in the powerful language of Dr Macculloch, "the mathematician, accustomed to the sole contemplation of his own science, has forgotten that the laws of mechanics comprise but one of the two great powers in the universe. Chemistry is the other right hand of the Creator: the sources of change, the joint governor with mechanics; the opposing power, when its power is required. This mathematician, writing on geology, should not have forgotten that: as a mere astronomer he ought not; for that Chemistry is acting in the comets and in the sun, as it has acted and is acting in every planetary and solar body throughout the universe."* Nor was this mathematician aware of what geologists now admit, that the successive changes to which the earth has been subject, have been improvements in its condition as a habitable world; nor that there has been a correspondent advance towards per-

* Macculloch's *System of Geology*, Vol. I. p. 510. London, 1831.
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fection in the natures of the animals and plants which have been placed on it; nor that these races have been several times destroyed and renewed. In astronomy too, recent discoveries have rendered it extremely probable that there exist disturbing causes in the planetary spaces, which must inevitably produce ultimate derangement and ruin among the heavenly bodies; and, therefore, the present order among the heavenly bodies had a beginning.* Thus have the tables been completely turned on this subject; and astronomy and geology, especially the latter, conduct us back to the very act of creative power by which the universe was produced. And this is what no other science can do.

.. 2. *Geology furnishes proof, both of the general superintending providence of God over our globe, and also of special interference from time to time with the usual order of things upon its surface.*

In spite of all the catastrophes and changes which the crust of the globe has undergone, the disturbing agencies have never been permitted to pass certain limits, nor to interrupt the general order, nor to interfere with the general good. Every change, however sudden and violent, appears to have been adapted to promote some important end in relation to the animals and plants which have flourished on our planet. To preserve a proper balance among such powerful agencies, and to make apparent disorder and confusion subserve the general good, is surely evidence of a Divine Superintendence, which only infinite wisdom, directing infinite power, can exercise. When events follow their causes with mathematical certainty, and we can see the infallible connection between antecedent and consequent, we are apt to feel as if we need look to no higher power than that which resides in nature to explain phenomena; and the idea of a Divine Superintendence fails to impress us, because we see no need of such an overruling power. But when we see the powerful agencies of nature breaking forth at irregular intervals, as if for the destruction of the world, and ruin actually fol-

* Whewell's Bridgewater Treatise.

lows, yet on more thorough research we find these destructive agencies to have their limits assigned them, and to be subservient to important ends, our sense of the need of a superintending Providence greatly increases, as well as our admiration of the wisdom which can employ instruments of destruction for the preservation, security, and happiness of the universe.

Now such a view of Divine Providence as this, geology presents. It does more. It furnishes us with examples of a special or particular Providence. It shows us that the regular order of events on this globe has been repeatedly interfered with. It informs us of several successive conditions of the globe, each different from that which preceded it, and furnished with new and peculiar races of animals, and plants. The fact seems to have been, that the changes which the globe underwent from epoch to epoch, rendered it necessary to repeople it from time to time with new races, whose natures were adapted to a new condition of things. Now it is not difficult to conceive how these variations in the condition of the globe should have gradually destroyed the races of plants and animals that were adapted only to a particular state, as to temperature, climate, water, &c. even without the aid of such sudden and violent catastrophes as we have reason to believe did actually occur. But how, without falling into the grossest materialism, can we account for the re-peopleing of the renovated earth, without admitting a new and special act of creation? Sir Isaac Newton has said, that "the growth of new systems out of old ones, without the mediation of a Divine Power, is absurd;" superlatively absurd, we may add, if the new system be stocked by new races of plants and animals. Even if we admit what some geologists maintain, (although we think incorrectly,) that species become *gradually* extinct, and are from time to time replaced by new ones, still we perceive, that the same necessity exists for Divine interference; nay, according to this view, a new creation takes place a thousand times more frequently than the other supposition renders necessary.

If these views are correct, they exhibit to us a more

impressive exhibition of a special Divine Providence than can be derived from any other department of science. They carry us back to the period when the universe was produced out of nothing, and present the Deity to us, not as withdrawing from the vast machine of nature, as if it contained within itself the power to regulate and sustain, but watching over it, directing all its movements, and from time to time fitting it up anew for new purposes, just as really and assiduously as any human artist does in relation to a machine of his own contrivance and construction. And these we think are fair inferences from a science, which many good men have regarded, and still regard, as favourable to atheism! It is curious too, that those very revolutions on the globe, disclosed by this science, behind which atheistical minds once entrenched themselves, should be found on a nearer inspection to be inscribed all over with the doctrine of a special Providence!

It ought not to be forgotten too, that the past special interference of the Deity with the regular sequence of events on the globe, is an earnest of a similar interference in future, should his purposes require. And since we now see in slow progress the same causes which preceded former revolutions, we derive from hence a presumption in favour of the opinion that God may hereafter put forth the like renovating and new creating energy. The presumption extends too, to other acts of special interference, such as miracles and revelations. So that the legitimate effect of geology is to prepare the mind for the disclosures of the Bible.

3. Geology furnishes numerous illustrations of the Divine Benevolence.

1. It is illustrated by the nature of the soil resulting from the decomposition of the various rocks. Such decomposition, it is well known, is the origin of all soil: and we can see no reason in the nature of things, why the materials furnished by this process of disintegration should be adapted to the growth of those plants that are necessary for the sustenance and comfort of animals. But such is almost universally the case. True, there are

wide deserts: but other causes (the chief of which is a periodical deficiency of moisture,) besides the want of power to sustain vegetation, mainly contribute to make them such. And in this adaptedness of soils for so great a variety of plants as are necessary for the support of a far greater variety of animal natures, we think we see a clear indication of Divine benevolence.

2. We discover similar indications in the disruption, elevation, dislocation, and overturning of the rocks in the crust of the globe. With few exceptions the stratified rocks were originally deposited in a nearly horizontal position. But we now find them, the older strata especially, tilted up at all angles, and divided by numerous fissures, along which extensive lateral, vertical and oblique movements have taken place; whereby the continuity of their layers has been destroyed, their edges made to overlap, and often whole mountains to exhibit the appearance of a mighty ruin. Into these fissures the unstratified rocks have been protruded in every possible mode, and are often piled up in the most irregular manner upon the stratified rocks; so that the impression made upon the mind of the observer is altogether one of the wildest disorder and desolation. We can hardly avoid the inference, that when we compare all this confusion with the beautiful order and harmony which nature in all her other productions exhibits, that we have at length got into the region of "chaos and old night;" and that it is the wreck of creation which we see; the terrific mementos perhaps of some former penal infliction upon a guilty race.* But our impressions and inferences are hasty and erroneous. The scene before us is only a new mode for the exhibition of Divine skill and benevolence. Suppose the strata had been left in a horizontal position. One of the consequences would have been that all, or nearly all those beds and veins of limestone, coal and

* Such is the view taken of these facts in Gisborne's otherwise excellent treatise, entitled, "The Testimony of Natural Theology to Christianity." All this confusion he imputes to the Noachian deluge; an opinion which is entirely disproved by the whole records of geology.

metallic ores, that are now so extensively wrought in almost every country, would have remained for ever hidden in the depths of the earth. But the elevation and dislocation of the strata bring them to view, and facilitate their exploration. Now consider what would be the condition of man if deprived of lime, coal and the metals. Was there no design, no benevolence, then, in the means by which they were brought within the reach of man?

3. Design and benevolence are exhibited in the production and arrangement of the valleys that chequer the earth's surface. And most of these valleys were originally produced by the same elevating and dislocating agency which we have seen to be so serviceable in other respects. For had the strata never been thrown up and disarranged, the earth's surface must have remained a dead level; and the sea would have covered the whole of it. Or if we suppose dry land to have existed, yet without valleys, water could have existed on it only in stagnant ponds and lakes. Morasses and the rank vegetation of low and wet regions would have filled the atmosphere with pestilential miasms; and, indeed, have rendered the globe uninhabitable by such natures as now dwell upon it. In consequence of the existence of valleys, the water, raised by evaporation, and falling upon the mountains, finds its way to the great ocean; keeping itself and the atmosphere pure by its agitations, affording a wholesome beverage to all classes of animals, and sustenance to the whole vegetable kingdom; and aiding in a thousand ways to fill the world with beauty, life, and happiness. But without such an arrangement of valleys as now diversify its surface, this great system of circulation could not be carried on.

All existing valleys, however, cannot be imputed to the original elevation and disruption of the strata. But in this mode were most of them commenced: though without subsequent modification, they would have been only frightful rocky chasms. Powerful diluvial and fluvial action, therefore, has been repeatedly permitted to operate upon the sides and bottoms of these valleys, to wear away their angular projections, and fill up their deep and

irregular cavities with soil, so as to give them those pleasing curves which most of them now exhibit, and to render them capable of cultivation. In most level countries this diluvial and fluvial agency has produced all the valleys that exist, and which are generally sufficient to form the beds of rivers and redeem their banks from waste and desolation.

We find then, that we are indebted to the volcanic power within the earth, and to the aqueous agency that has so repeatedly and powerfully swept over its surface, not only for bringing to the light of day the mineral resources of the globe, but for all that diversity of surface which gives so much beauty and grandeur to the landscape, and is indispensable for the circulation of a fluid, whose motion is prolific of beauty and life, but whose stagnation is death. Can we any longer doubt, that there is design and benevolence in the apparent disorder and ruin of the crust of our globe? Surely here is design in the midst of confusion; beauty spreads over a scene, which, under another aspect, seemed but desolation and ruin, and the kind visage of benevolence beams upon us, where just before we saw only the flashes of an avenging Deity's wrath.

4. We derive another evidence of Divine Benevolence from the mode in which metallic ores are distributed among the rocks. If the great mass of the globe has been formerly in a state of fusion, as nearly all geologists now admit, the useful metals, being for the most part the heaviest materials of the earth, would have occupied the centre, and become enveloped by rocks and earth, so as to be for ever inaccessible to man. But either through the expansive force of internal fires, or by sublimation from the same cause, or by the operation of galvanic agents, or in some other unknown method, a portion of these metals is disposed in the form of veins in nearly all the rocks at the surface. That the great mass of these metals is actually accumulated in the central parts of the globe, is probable from the very great specific gravity (about twice that of granite,) of the internal portions of the earth. Now what but Divine Benevolence should thus, in apparent opposition to gravity, have forced towards the sur-

face just enough of the metals to serve the important purposes of human society for which they are employed? They might have been thrown in immense masses and in a metallic state over that surface: but the fact that industry alone can now obtain them, is another proof of design and benevolence; since this virtue is of more importance to human happiness than even the metals.

And is not the relative proportion as to quantity in which the different metals are found, another evidence of the provident foresight and benevolent care of the Deity? Iron, by far the most useful, is far the most abundant, and most easily accessible. Of lead and copper, which are extremely important, but not so indispensable as iron, there is no lack at a moderate price. And as we proceed along the scale of the useful metals, we shall find for the most part, that the quantity of the metal is proportioned to its utility. The very scarcity of gold and silver gives them their value: for were they as abundant as iron, their use as a circulating medium must be abandoned. Yet scarce as they are, their astonishing ductility and malleability enable the artist to spread them over an immense extent of surface, and thus to employ their most valuable property, that of resisting oxidation, on a scale nearly commensurate with the wishes of man. In all these facts, can we fail to recognize a wisdom and benevolence which God only can possess?

5. The accumulations of rock salt, gypsum, limestone and coal in the earth in past ages, affords another exhibition of Divine Foresight and Benevolence. Geologists are agreed that all these substances were produced in a gradual manner; though as to the mode in which the two former were accumulated, they have not the most satisfactory evidence: but the origin of the various species of coal—lignite, bituminous coal and anthracite—seems now to be clearly understood. All of it had a vegetable origin. The dense tropical forests that covered all parts of the globe in the earliest times, have become converted, in the course of ages, into this most useful substance. If a superior but finite being had beheld this world, while yet only a sparse population of animals of inferior grade

inhabited it, he might have thought it strange that such a vast superfluity of vegetation should cover its surface. But God was thus providing for the wants of future and superior races of beings. When man should in after times be multiplied in all lands, and forests should be swept away to make room for him, a supply of other fuel than the existing vegetation would be necessary for his comfort and the perfection of society. God, therefore, provided beforehand for this exigency by rendering the earth prolific in such a vegetation as would be converted into coal by the slow processes of nature. He buried this treasure in the earth by means of aqueous and volcanic agencies, and permitted these same agencies to place it within the reach of human industry against the proper time. Who can doubt but this is an example of Divine prospective Benevolence? We see in it the providence of a kind Father, laying up a store for the support of his future offspring. And we learn from it, not to judge hastily of the ultimate designs of the Deity from present appearances. What seems superfluous now, or ill adapted to our present condition, may be intended for the comfort and happiness of other beings millions of ages hence.

“ In human works, though laboured on with pain,
A thousand movements scarce one object gain :
In God's one single can its end produce,
Yet seems to second too some other use.”

The history of the formation of limestone conducts us to similar conclusions. For the most part this substance appears to be originally produced by marine animals; God having given them the power, either to obtain it by decomposing those salts of lime which the waters hold in solution, or by some unknown chemistry to form it anew out of more simple elements. With the lime obtained in this mysterious manner, these animals construct their habitations; the most remarkable of which are the coral reefs which at present stretch over so many degrees of latitude and longitude, forming the basis of numerous islands in the Pacific ocean, and are the work of certain

minute polyparia. Forsaken at length by the animals, these coral structures become buried in the earth, and there in the course of ages are mixed with other substances and subjected sometimes to partial or complete fusion, whereby they become converted into the different varieties of limestone now found in the earth's crust. And it is a curious fact, that the quantity of limestone in the earth seems to have been gradually increasing from the earliest times ; so that the accumulated store is now abundantly sufficient for the fullest population that the globe can sustain.

6. We regard the existence of volcanoes as evidential of Divine Benevolence. We have already pointed out incidentally several important objects that have been accomplished in past ages by volcanic power, in the elevation of continents, the formation of valleys, and protrusion to the surface of useful minerals. But we refer now to active and not extinct volcanoes. And these, we are aware, are almost universally regarded as exhibitions of the displeasure of God, rather than of his benevolence. It is indeed true, that they are often terrific exhibitions of his power ; and when He employs them as penal inflictions, they signally manifest the sterner features of the Divine character. Yet we maintain that the design of volcanoes is to preserve and not to destroy. They have been denominated "the safety valves of our globe:" and this quaint expression conveys a forcible idea of what we mean by the benevolent design of this mighty agency. If it be indeed true, as most geologists now admit, that even at this day the earth contains extensive accumulations of intensely heated matter, embracing perhaps all its central parts, then may it be literally true that volcanoes are the safety valves of the globe. For if such molten reservoirs do not occasionally have vent, the vapour and gases generated within them would burst the globe asunder. The phenomena of earthquakes admonish us of the consequences of closing these valves : for they are produced by the struggles of these vapours and gases to escape ; and until they do escape through volcanic vents, they heave and fissure the solid strata over whole continents ;

and in past days they have been far more destructive to property and life than volcanoes. But so soon as the force is sufficient to lift the safety valve, that is, to uncap the volcano, the earthquake ceases. Let the valve be heavy enough, and the earth would ere long be blown to atoms. To prevent such a catastrophe, God has scattered more than two hundred of these safety valves over its surface.

It will probably be asked why God could not have put in operation an agency that would have afforded the requisite security, unattended by that terrific waste of life and comfort which has followed in the track of volcanoes. We see no reason, indeed, why he could not have secured the good without the evil. But the same difficulty meets the student of natural theology at every step of his progress. To solve it, is to do nothing else than to determine why God permits evil at all: a question that has hitherto proved too deep for the human understanding. But in every case where any contrivance is adapted to produce more good than evil, we reasonably infer the benevolence of the design. And even in the case of volcanoes, no one can imagine that the occasional loss of a few lives is a matter of so much importance as the security of the whole globe which is thereby obtained. When we can ascertain why God permits evil at all, we can answer the question, why in this case he does not afford the security without the attendant mischief.

7. Finally, the adaptation of the natures of different groups of animals to the different states of the globe in past times, affords evidence of Divine Benevolence.

So peculiar was the structure, and in many cases so enormous was the size, of the animals found in a fossil state, that we are apt to regard them as exceptions to the usual beauty and proportion of nature, a sort of half-formed and monstrous creation, corresponding rather to the ancient opinions of chaos than to the order and harmony of the existing world. The alligators and crocodiles of these times are mere pigmies when compared with the plesiosaurus, the ichthyosaurus, the megalosaurus, and the iguanodon of the ancient world. "Imagine an animal of the lizard tribe," says Mr. Mantell, "three

or four times as large as the largest crocodile, having jaws, with teeth equal in size to the incisors of the rhinoceros, and crested with horns;—such a creature must have been the iguanodon! Nor were the inhabitants of the waters much less wonderful: witness the plesiosaurus, which only required wings to be a flying dragon.”—Yet one of the most distinguished anatomists of the present day says on this subject, that “the animals of the antediluvian world were not monsters; there was no *lusus* or extravagance. Hideous as they appear to us, and like the phantoms of a dream, they were adapted to the condition of the earth when they existed.”* “Judging by these indications of the habits of the animals, we acquire a knowledge of the condition of the earth during their period of existence; that it was suited at one time to the scaly tribe of the lacertae, with languid motion; at another, to animals of higher organization, with more varied and lively habits; and finally, we learn, that at any period previous to man’s creation, the surface of the earth would have been unsuitable to him.”†

Here then do we see the overflowing benevolence of the Deity. He was fitting up this world for the future residence of intellectual and moral beings; and he chose to do it, not by a miracle, but by the sole agency of natural causes. But must the world during this immense period remain an uninhabited waste? Benevolence could not permit it; and infinite power put forth its energies, under the guidance of infinite wisdom, to create we know not how many myriads of beings, with natures adapted to the semi-chaotic condition of the earth: and when that condition had become so altered that the first group of animals could no longer flourish or be happy upon it, he suffered them to become extinct, and put forth again the creative energies of the Godhead to produce a second and more perfect race: then succeeded a third, and probably a fourth; more and more perfect in their organization, until at last man, with the existing inferior tribes,

* Bell’s Bridgewater Treatise, p. 35.

† Idem, p. 31.

was brought into being; because creation around him had assumed such a condition as was fitted to their natures.

Such are the beautiful displays of Divine Benevolence that meet us in that ancient field of geological research, which scepticism has heretofore described as covered over with the formless monuments of blind chance and fate; and which piety has supposed to be consecrated to atheism!

4. Geology enlarges our conceptions of the plans of the Deity.

Here we must admit in the outset, that a belief in periods of time immensely long, during which geological changes have been developing, is the fundamental idea that enlarges our conceptions of the plans of Jehovah. But what man acquainted with the present state of geology, doubts that such periods of duration have actually intervened since the earth's creation? In whatever other respects geologists disagree, all, I believe, who are practically acquainted with the subject, coincide in this opinion. We can conceive how a man should persuade himself from the study of geology in the cabinet, that the revolutions of the globe have not demanded but a few thousand years for their development; or that all the rocks should have been created in a moment in the condition in which we now find them: but we cannot imagine how any intelligent man should maintain such opinions, after having examined the strata in the mountains, and compared the strata which are now accumulating on the earth's surface with those that are consolidated. The conclusion from such an examination seems to us irresistible, that periods of time almost too great for human powers to estimate, have been employed since the original creation of our globe, to bring it into its present state. "Let us contemplate time," says Dr. Macculloch, "as it relates to the creation, and not to ourselves, and we shall no longer be alarmed at that which the history of the earth demands. Every change which it has undergone has required time: every new deposition of rocks has been the work of ages; and the sum of these is the duration which has been reviewed; although this is possibly but a small space compared to that through which it

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has existed as a planetary globe.”—“ Who indeed can sum this series? the data are not in our power: yet we can aid conjectures. The great tract of peat near Stirling has demanded two thousand years; for its registry is preserved by the Roman works below it. It is but a single bed of coal; shall we multiply it by a hundred? we shall not exceed, far from it, did we allow two hundred thousand years for the production of the coal series of Newcastle, with all its rocky strata. A Scottish lake does not shoal at the rate of half a foot in a century; and that country presents a vertical depth of far more than three thousand feet, in the single series of the oldest sandstone. No sound geologist will accuse a computer of exceeding, if he allows six hundred thousand years for the production of this series alone. And yet what are the coal deposits, and what the oldest sandstone compared to the entire mass of the strata? Let the computer measure the Appenine and the Jura; let him, if he can trust Pallas, measure the successive strata of sixty miles in depth, which he believes himself to have ascertained, and then he may renew his computations, while, when he has summed the whole, his labour is not terminated.”*

This is not the place to consider the supposed interference of such views as these with revealed chronology; though we may remark in passing, that many of the most distinguished commentators and theologians of modern times are of opinion that there is no interference; and should life be spared, we may hereafter present to our readers our views of this subject. But admitting the existence of these immense periods of terrestrial existence, it at once produces an astonishing enlargement of our views of the plans of the Deity. It shows us that the brief space of man's first existence on the globe is but one of the units of a vast series of chronological periods that have gone before. And yet, the whole series is so linked together as to prove it all to be but a single system. A single system, do we say? Perhaps—vast as it is—it is only a single link of a system. The records of past eter-

* System of Geology, Vol. I. p. 506.

nity may contain the history of other links vastly more extended, and the roll of coming eternity may develop others still more astonishing and illustrative of the perfections of an infinite God.

Are these immense conclusions alarming to any, because they so far surpass their previous apprehensions? But why should they be unwilling to have geology thus extend their vision as far into the arcana of time, as astronomy does into the regions of space? Why unwilling to have their souls enlarged and refreshed by the mighty plans of the Deity, which these now kindred sciences develop? Long has astronomy been celebrated for its power of liberalizing the mind and correcting the judgment as to the extent of the universe. But geology opens fields equally wide and magnificent; and when the days of prejudice have passed by, it will be regarded equally with astronomy, as the favourite field of the truly noble and pious soul.

We admit that some geological writers have used language in respect to past duration of the globe that is objectionable; because it seems at first view to favour the idea of its eternity. Very recently, for example, a geologist terminates his elaborate and able treatise on this science, by saying, that "to assume that the evidence of the beginning or end of so vast a scheme lies within the reach of our philosophical inquiries, or even of our speculations, appears to us inconsistent with a just estimate of the relations which subsist between the finite powers of man and the attributes of an Infinite and Eternal Being.* Yet this same writer in the preceding paragraph had said, that "in whatever direction we pursue our researches, whether in time or space, we discover everywhere the clear proofs of a Creative Intelligence, and of his foresight, wisdom and power,"† and thus we see that he was not a believer in the earth's eternity.

Again, when we maintain that our globe had existed through an immense period of time anterior to the crea-

* Lyell's Principles of Geology, Vol. III. p. 385.

† Idem, p. 384.

tion of man, we do not mean that its condition was that of a chaos, as that term was understood by the ancient heathen philosophers. They do not, indeed, seem to have had very definite notions of a chaos. Sometimes they understood by the term only a void space: but usually they considered it as a confused and disorderly mixture of all sorts of particles, uncontrolled by the laws that at present regulate matter, and indeed, scarcely possessed of the properties that now inhere in matter. Now we maintain, that from the very moment when the fiat of creation was uttered, the matter of the globe was as perfectly and as entirely subject to natural laws as at this hour. Gravity and cohesion bound the particles together as firmly as it now does; although probably their antagonist caloric, was more energetic in its repellency. Chemical affinities too, were in as active and powerful play as in subsequent times: Nor were electrical and magnetic phenomena different in kind from what we now witness. And as soon as animals and plants were created, the laws of life were the same as now control the animated world. The condition of the globe was then, indeed, widely different from its present state, as to the forms of organized and unorganized matter: and in general those forms were then more simple, and of course there was less of exquisite beauty and nice proportion than nature now presents. But order and system as truly reigned through all creation, and things were mutually adapted to one another as exactly as at this hour. There was a greater simplicity of organization and proportion at that period, not because the laws of nature were less perfect, or matter was less under their control; but just because the circumstances of the world and the plans of the Deity made it the result of the highest wisdom to adopt such simplicity.

Such was the chaos which we believe in: and we apprehend that it corresponds with the opinions of most modern geologists. It is in fact only an exhibition of Divine Wisdom and Benevolence, under a form somewhat modified from the picture which creation now exhibits. We believe too, that the forms and condition of the globe have been changed by no other laws or causes

than those now in operation : and that God chose to employ these, rather than the special interposition of miraculous power, because it seems to be a fixed principle of his government to put forth no unnecessary exercise of miraculous power. Man may call all this chaos if he will ; but it is a bright manifestation of Divine Wisdom.

The progressive improvement which the state of the globe seems to have undergone in past ages, and is now undergoing, presents the plans of the Deity to our contemplation in an interesting light. In the earliest condition of the earth, the soils on its surface must have been meagre, and scarcely adapted to the support of vegetable life. But the processes of degradation, that have always been going on, and the accumulation of animal and vegetable matter, must improve their quality and increase their quantity. It appears too that there has been a constant increase of limestone since the stratified rocks began to be deposited. Now the calcareous are the richest of all soils, and the most prolific in vegetation. From this cause, then, we see progressive fertility produced. Accordingly, there are some reasons for supposing that each successive creation of animals and vegetables has been more numerous than the one that preceded it ; and we know that there has been a progression in the complication and curious structure of their natures.

These facts teach us that the same admirable adaptation of the different parts and processes of nature, which we observe in the present creation, has always been prominent in every previous condition of the globe, indicating the untiring and ceaseless exercise of the same infinite wisdom in all ages. We see, secondly, in these facts, evidence that the plans of the Deity have always been devised with such admirable skill, that from apparent evil real good is always produced in the end. At first view we cannot but regard the tremendous revolutions which the earth appears to have undergone with painful emotions, and as evidence either of penal inflictions, or of a defect of contrivance on the part of the Creator. But here we learn that every revolution of this kind is improvement, and that its object was to fit the world for

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more numerous and perfect beings. This view of the subject changes the penal aspect of these revolutions into displays of benevolence, and defect of skill and contrivance into a demonstration of infinite wisdom.

Upon the whole, however, geology gives the greatest expansion to our views of the plans of Deity, by furnishing us with a clue to one of the grand conservative and controlling principles of the universe. But two of these principles have yet been discovered. Newton developed the great Mechanical Power by which the universe is sustained, when he unfolded and demonstrated his theory of gravitation. The other, the Chemical Power,—the second right hand of the Creator—it was reserved for geology to bring to light. A third, perhaps, the Electrical Power, may yet be disclosed by some future Newton. Gravitation binds the universe together, and controls the movements of its larger masses. But were no chemistry at work in these masses, to transmute their elements into successive forms of beauty and life, it would be literally the bands of death which gravity would impose. But chemistry is at work unceasingly through all the dominions of nature, and perpetual change is the result. This perpetual change is the great conservative and controlling principle to which we referred. On the surface of the globe, and especially among animals and plants, this constant change, this perpetual increase and diminution; renovation and destruction, have always been most obvious; and it is usually regarded as a defect or penal infliction, rather than a wise and universal law of nature. Especially does diminution and decay affect us with painful emotions. And we would not deny that such may be the circumstances under which these changes occur, as to make them real penal inflictions. Indeed, natural theology cannot but regard in this light the diseases and dissolution to which man is subject. Still geology in connection with astronomy shows us that perpetual change of form and condition is a universal law of nature; that it is not limited to the organized creation, but extends an equal dominion over suns and planets.

We see it, in the first place, in the geological history

of our globe. There is an increasing agency at work all around us to wear down the mountains and to fill up the valleys; and we see the evidence of powerful diluvial action in comparatively modern times, in the accumulation of detritus, and in the grooves and furrows which the surfaces of rocks exhibit. As we descend into the solid strata, we meet with perpetual proof, in the chemical and mechanical characters of the rocks, and in their organic remains, that a multitude of changes have been going on during their deposition: or rather that there has been unceasing change.

At this point geology connects itself with astronomy: and the two sciences are made to reflect mutual light upon each other. Astronomy discloses to us certain facts in respect to other worlds, that lead the geologist strongly to suspect, that they too are undergoing those changes and that progressive improvement which the earth has experienced. The comets appear to be in the very earliest stages of those transmutations. They appear to be even in a gaseous condition, through excessive internal heat; and are not yet brought into such a state that any animal or vegetable natures with which we are acquainted could inhabit them; though the remarkable history of the extinct organized beings of our own globe, should lead us not to be very confident on this point. To become the fit residence of such natures as ours, by the operation of natural laws, will surely require periods of almost incalculable length. Still further removed from the condition of our globe appears to be that of the nebulae; consisting apparently of the materials out of which comets might be formed; though here too, uncertain conjecture is our only guide. But the point which we wish to be borne in mind, is, that these bodies, as well as the comets, seem to be in a condition analogous to what the records of geology lead us to conjecture might have been the state of our globe at some period of the immense past. The moon, we may reasonably conjecture, seems to be so far redeemed from the excessive violence of volcanic agency, as to be adapted, perhaps, to the natures of some organized beings; though it is doubtful whether that

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globe has such an element as water, or any atmosphere, upon its surface. This fact, however, by no means militates against the idea that it may contain living beings. For to infer that water and air are essential to all organized existence, because such is the case on this globe, would be the conclusion of a narrow-minded philosophy. Jupiter on the other hand, it would seem, may be covered as yet with one shoreless ocean : and there perhaps such leviathans may now be playing as once sported in the earlier seas of our globe.

Such are the motions and orbits of the asteroids of the solar system, that ingenious men have been led to conjecture that they once constituted a single planet between Mars and Jupiter, which was burst asunder by some internal force. And if such a process of refrigeration has taken place in other planets as in our own, might we not admit, that under possible circumstances, such a terrific disruption might have taken place ? and that too in exact accordance with the most wise and benevolent plans of the Deity ?

Those solid meteors that sometimes fall to the earth appear to have been in a state of fusion ; and, indeed, they are usually intensely heated when they descend. May we not regard these facts too, as perfectly consonant with the idea that all the bodies of the universe are undergoing important changes by powerful agents, not the least of which is heat ?

Is it not most natural and philosophical to regard the sun as an immense globe of heated matter, constantly radiating heat into space, and therefore gradually cooling ? And what are the spots on its surface, but the incipient crust ? And what is the zodiacal light, but elastic vapours, driven by heat from the sun's surface and made to assume an oblate and almost lenticular form ?

Shall we regard those fixed stars that have in past ages disappeared from the heavens and those which now shine only periodically, as evidence of disorder and ruin among the works of God ? Rather let the analogies at which we have hinted lead us to view them as worlds in particular stages of those mighty changes to which we have

reason to believe the universe is subject, and without which all would be stagnation and death.

We acknowledge that these astronomical facts afford us but faint glimpses of the geology of other worlds. Nevertheless, they seem to us to lead the mind that is conversant with the geological history of our globe, irresistibly to the conclusions that similar causes are in operation, and similar changes are in progress, in other worlds; and that perpetual change is not an anomaly peculiar to our planet, but the very essence of a vast system embracing the wide universe.

Faint as is the light that is yet thrown upon this subject, yet what an immense field for contemplation does it disclose to our view! and how do the plans of the Infinite Mind enlarge and ramify as we gaze upon them, until we see them connecting past eternity with that which is to come; the two extremities being lost in the dimness of distance! God is here exhibited to us as employing the same matter, under successive forms, for a great variety of different purposes; all, however, connected into one vast system; and all bearing upon the happiness of animated natures. How much more of grandeur and moral sublimity does such a view of creation exhibit, than the common opinion, which supposes this world, and even a large proportion of the whole universe, created to subserve the wants of man, and to be destroyed when man ceases to exist. The latter plan might, indeed, be worthy of a man, or an angel; but the former is worthy of the Deity.*

* ——— Sed cum eae rationes, quibus inductus Universum condidit, intellectui divino semper observaventur, cur mihi non persuadeam, Deum infinite potentem ac bonum jam multis vetro saeculis mundi systemata produxisse, cur vim ejus creatricem augustis terrae nostrae, cujus existentiam sex mille circiter annos non excedere lubens fateor, terminis circumscribeam?

“ Since the reasons that led the Deity to found the Universe always exhibit a Divine Intelligence, why should I not believe, that a God infinitely powerful and good, created the system of the world many ages ago? Why should I confine his creating power to the narrow limits of our earth, whose duration I willingly confess does not exceed six thousand years?”—*Doederléinii Theologia*, p. 477. Note by the commentator, C. Godofr. Junge.

And in what a new aspect does the view we have taken of this all-pervading principle of change, exhibit the tendency to decay and ruin so deeply marked on the whole material world ! Poets and sentimentalists have ever taken a melancholy interest in depicting the perishable nature of all created things :

“ What does not fade ? The tower that long had stood
The crush of thunder and the warring winds,
Shook by the slow but sure destroyer Time,
Now hangs in doubtful ruins o'er its base ;
And flinty pyramids and walls of brass
Descend ; the Babylonian spires are sunk ;
Achaia, Rome and Egypt moulder down.
Time shakes the stable tyranny of thrones,
And tottering empires rush by their own weight.
This huge rotundity we tread grows old,
And all those worlds that roll around the sun.
The sun himself shall die, and ancient Night
Again involve the desolate abyss.”

But let this tendency to dissolution be regarded only as one of the necessary forms through which matter passes, in its progress toward improvement, and as necessary to the preservation and happiness of the universe, as in fact an essential feature of a sublime and far-reaching plan of the Deity ; and when we see nature thus apparently descending into her grave, we shall look upon her drooping form as a sure presage of her speedy resurrection in renovated strength and beauty. The decay and dissolution of our own bodies (in which there is something evidently penal,) have thrown a melancholy aspect over the great and salutary changes which take place in nature only for the good of the universe. But the view of the subject which we have taken, dissolves this unhappy association, and leads us to connect all the revolutions of the material world with its improvement and with the vast plans of Jehovah.

But we will dwell no longer on this great theme. Our only hope is that we have thrown light enough into this almost unexplored field, to satisfy noble minds that here they may obtain such glimpses of the purposes of the

Deity, as will fill and overwhelm the loftiest intellect, and excite the strongest emotions of reverence and love towards the Infinite Mind that is capable of continuing and executing such plans.

Such is the religion of geology. Prejudice may call it atheism, because it presents before us views so new and peculiar; and scepticism may pervert these views to suit an unsubdued and unholy heart. But we call this religion a transcript of the Divine Perfections. And if there be one spot in the whole circle of science, where the student of natural theology can find fuel to kindle up the flame of devotion, it is, as it seems to us, when he secures a live coal from the altar of geology.

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THE
IMPORTANCE AND MEANS
OF
A NATIONAL LITERATURE.

BY WILLIAM ELLERY CHANNING, D. D.

EDINBURGH:
THOMAS CLARK, 38, GEORGE STREET.

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OUR purpose is to treat of the importance and means of a National Literature. The topic seems to us a great one, and to have intimate connections with morals and religion, as well as with all our public interests. Our views will be given with great freedom, and if they serve no other purpose than to recommend the subject to more general attention, one of our principal objects will be accomplished.

We begin with stating what we mean by national literature. We mean the expression of a nation's mind in writing. We mean the production among a people of important works in philosophy, and in the departments of imagination and taste. We mean the contributions of new truths to the stock of human knowledge. We mean the thoughts of profound and original minds, elaborated by the toil of composition, and fixed and made immortal in books. We mean the manifestation of a nation's intellect in the only forms by which it can multiply itself at home, and send itself abroad. We mean that a nation shall take a place, by its authors, among the lights of the

world. It will be seen, that we include under literature all the writings of superior minds, be the subjects what they may. We are aware that the term is often confined to compositions which relate to human nature, and human life : that it is not generally extended to physical science ; that mind, not matter, is regarded as its main subject and sphere. But the worlds of matter and mind are too intimately connected to admit of exact partition. All the objects of human thought flow into one another. Moral and physical truths have many bonds and analogies, and whilst the former are the chosen and noblest themes of literature, we are not anxious to divorce them from the latter, or to shut them up in a separate department. The expression of superior mind in writing, we regard then, as a nation's literature. We regard its gifted men, whether devoted to the exact sciences, to mental and ethical philosophy, to history and legislation, or to fiction and poetry, as forming a noble intellectual brotherhood ; and it is for the purpose of quickening all to join their labours for the public good, that we offer the present plea in behalf of a national literature.

To show the importance which we attach to the subject, we begin with some remarks on what we deem the distinction which a nation should most earnestly covet. We believe that more distinct apprehensions on this point are needed, and that for want of them, the work of improvement is carried on with less energy, consistency, and wisdom, than may and should be brought to bear upon it. The great distinction of a country, then, is, that it produces superior men. Its natural advantages are not to be disdained. But they are of secondary importance. No matter what races of animals a country breeds. The great question is, does it breed a noble race of men ? No matter what its soil may be. The great question is, how far is it prolific of moral and intellectual power ? No matter how stern its climate is, if it nourish force of thought and virtuous purpose. These are the products by which a country is to be tried, and institutions have value only by the impulse which they give to the mind. It has sometimes been said, that the noblest men grow where nothing

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else will grow. This we do not believe, for mind is not the creature of climate or soil. But were it true, we should say, that it were better to live among rocks and sands, than in the most genial and productive region on the face of the earth.

As yet, the great distinction of a nation on which we have insisted, has been scarcely recognised. The idea of forming a superior race of men has entered little into schemes of policy. Invention and effort have been expended on matter, much more than on mind. Lofty piles have been reared ; the earth has groaned under pyramids and palaces. The thought of building up a nobler order of intellect and character, has hardly crossed the most adventurous statesman. We beg that we may not be misapprehended. We offer these remarks to correct what we deem a disproportioned attention to physical good, and not at all to condemn the expenditure of ingenuity and strength on the outward world. There is a harmony between all our great interests, between inward and outward improvements ; and by establishing among them a wise order, all will be secured. We have no desire to shut up man in his own spiritual nature. The mind was made to act on matter, and it grows by expressing itself in material forms. We believe, too, that in proportion as it shall gain intellectual and moral power, it will exert itself with increased energy and delight on the outward creation ; will pour itself forth more freely in useful and ornamental arts ; will rear more magnificent structures, and will call forth new beauties in nature. An intelligent and resolute spirit in a community, perpetually extends its triumphs over matter. It can even subject to itself the most unpromising region. Holland, diked from the ocean, Venice, rising amidst the waves, and New England, bleak and rock-bound New England, converted by a few generations from a wilderness into smiling fields and opulent cities, point us to the mind as the great source of physical good, and teach us that in making the culture of man our highest end, we shall not retard, but advance the cultivation of nature.

The question which we most solicitously ask about this

country, is, what race of men it is likely to produce. We consider its liberty of value, only as far as it favours the growth of men. What is liberty? The removal of restraint from human powers. Its benefit is, that it opens new fields for action, and a wider range for the mind. The only freedom worth possessing, is that which gives enlargement to a people's energy, intellect, and virtues. The savage makes his boast of freedom. But what is its worth? Free as he is, he continues for ages in the same ignorance, leads the same comfortless life, sees the same untamed wilderness spread around him. He is indeed free from what he calls the yoke of civil institutions. But other, and worse chains bind him. The very privation of civil government, is in effect a chain; for, by withholding protection from property, it virtually shackles the arm of industry, and forbids exertion for the melioration of his lot. Progress, the growth of power, is the end and boon of liberty; and without this, a people may have the name, but want the substance and spirit of freedom.

We are the more earnest in enlarging on these views, because we feel that our attachment to our country must be very much proportioned to what we deem its tendency to form a generous race of men. We pretend not to have thrown off national feeling; but we have some stronger feelings. We love our country much, but mankind more. As men and Christians, our first desire is to see the improvement of human nature. We desire to see the soul of man, wiser, firmer, nobler, more conscious of its imperishable treasures, more beneficent and powerful, more alive to its connection with God, more able to use pleasure and prosperity aright, and more victorious over poverty, adversity, and pain. In our survey of our own and other countries, the great question which comes to us, is this; Where and under what institutions are men most likely to advance? Where are the soundest minds and the purest hearts formed? What nation possesses in its history, its traditions, its government, its religion, its manners, its pursuits, its relations to other communities, and especially in its private and public means of education, the instruments and pledges of a more resolute virtue and

devotion to truth, than we now witness? Such a nation, be it where it may, will engage our warmest interest. We love our country, but not blindly. In all nations we recognise one great family, and our chief wish for our native land, is, that it may take the first rank among the lights and benefactors of the human race.

These views will explain the vast importance which we attach to a national literature. By this, as we have said, we understand the expression of a nation's mind in writing. It is the action of the most gifted understandings on the community. It throws into circulation through a wide sphere the most quickening and beautiful thoughts, which have grown up in men of laborious study or creative genius. It is a much higher work than the communication of a gifted intellect in discourse. It is the mind giving to multitudes whom no voice can reach, its compressed and selected thoughts, in the most lucid order and attractive forms which it is capable of inventing. In other words, literature is the concentration of intellect for the purpose of spreading itself abroad and multiplying its energy.

Such being the nature of literature, it is plainly among the most powerful methods of exalting the character of a nation, of forming a better race of men; in truth, we apprehend that it may claim the first rank among the means of improvement. We know nothing so fitted to the advancement of society, as to bring its higher minds to bear upon the multitude; as to establish close connections between the more and less gifted; as to spread far and wide the light which springs up in meditative, profound, and sublime understandings. It is the ordinance of God, and one of his benevolent laws, that the human race should be carried forward by impulses which originate in a few minds, perhaps in an individual; and in this way the most interesting relations and dependences of life are framed. When a great truth is to be revealed, it does not flash at once on the race, but dawns and brightens on a superior understanding, from which it is to emanate and to illumine future ages. On the faithfulness of great minds to this awful function, the progress and happiness of men chiefly depend. The

most illustrious benefactors of the race have been men, who, having risen to great truths, have held them as a sacred trust for their kind, and have borne witness to them amidst general darkness, under scorn and persecution, perhaps in the face of death. Such men, indeed, have not always made contributions to literature, for their condition has not allowed them to be authors; but we owe the transmission, perpetuity, and immortal power of their new and high thoughts, to kindred spirits, which have concentrated and fixed them in books.

The quickening influences of literature need not be urged on those who are familiar with the history of modern Europe, and who of course know the spring given to the human mind by the revival of ancient learning. Through their writings the great men of antiquity have exercised a sovereignty over these later ages, not enjoyed in their own. It is more important to observe, that the influence of literature is perpetually increasing; for, through the press and the spread of education, its sphere is indefinitely enlarged. Reading, once the privilege of a few, is now the occupation of multitudes, and is to become one of the chief gratifications of all. Books penetrate everywhere, and some of the works of genius find their way to obscure dwellings, which, a little while ago, seemed barred against all intellectual light. Writing is now the mightiest instrument on earth. Through this, the mind has acquired a kind of omnipresence. To literature we then look, as the chief means of forming a better race of human beings. To superior minds, which may act through this, we look for the impulses by which their country is to be carried forward. We would teach them, that they are the depositaries of the highest power on earth, and that on them the best hopes of society rest.

We are aware that some may think, that we are exalting intellectual above moral and religious influence. They may tell us, that the teaching of moral and religious truth, not by philosophers and boasters of wisdom, but by the comparatively weak and foolish, is the great means of renovating the world. This truth we indeed regard as "the power of God unto salvation." But let none

imagine, that its chosen temple is an uncultivated mind, and that it selects, as its chief organs, the lips of the unlearned. Religious and moral truth is indeed appointed to carry forward mankind ; but not as conceived and expounded by narrow minds, not as darkened by the ignorant, not as debased by the superstitious, not as subtilized by the visionary, not as thundered out by the intolerant fanatic, not as turned into a drivelling cant by the hypocrite. Like all other truths, it requires for its full reception and powerful communication, a free and vigorous intellect. Indeed, its grandeur and infinite connections demand a more earnest and various use of our faculties than any other subject. As a single illustration of this remark, we may observe, that all moral and religious truth may be reduced to one great and central thought, Perfection of Mind ; a thought which comprehends all that is glorious in the Divine nature, and which reveals to us the end and happiness of our own existence. This perfection has as yet only dawned on the most gifted human beings, and the great purpose of our present and future existence is to enlarge our conceptions of it without end, and to embody and make them manifest in character and life. And is this sublime thought to grow within us, to refine itself from error and impure mixture, to receive perpetual accessions of brightness from the study of God, man, and nature, and especially to be communicated powerfully to others, without the vigorous exertion of our intellectual nature ? Religion has been wronged by nothing more than by being separated from intellect ; than by being removed from the province of reason and free research, into that of mystery and authority, of impulse and feeling. Hence it is, that the prevalent forms or exhibitions of Christianity, are comparatively inert, and that most which is written on the subject is of little or no worth. Christianity was given, not to contradict and degrade the rational nature, but to call it forth, to enlarge its range and its powers. It admits of endless developement. It is the last truth which should remain stationary. It ought to be so explored and so expressed, as to take the highest place

in a nation's literature, as to exalt and purify all other literature. From these remarks it will be seen, that the efficacy which we have ascribed to literary or intellectual influence in the work of human improvement, is consistent with the supreme importance of moral and religious truth.

If we have succeeded in conveying the impressions which we have aimed to make, our readers are now prepared to inquire with interest into the condition and prospects of literature among ourselves. Do we possess, indeed, what may be called a national literature? Have we produced eminent writers in the various departments of intellectual effort? Are our chief resources of instruction and literary enjoyment furnished from ourselves? We regret that the reply to these questions is so obvious. The few standard works which we have produced, and which promise to live, can hardly, by any courtesy, be denominated a national literature.* On this point, if marks and proofs of our real condition were needed, we should find them in the current apologies for our deficiencies. Our writers are accustomed to plead in our excuse our youth, the necessities of a newly settled country, and the direction of our best talents to practical life. Be the pleas sufficient or not, one thing they prove, and that is, our consciousness of having failed to make important contributions to the interests of the intellect. We have few names to place by the side of the great names in science and literature on the other side of the ocean. We want those lights which make a country conspicuous at a distance. Let it not be said, that European envy denies our just claims. In an age like this, when the literary world forms a great family, and the products of mind are circulated more rapidly than those of machinery, it is a nation's own fault, if its name be not pronounced with honour beyond itself. We have ourselves heard, and delighted to hear, beyond the Alps, our country designated as the land of Franklin. This

* It is scarcely necessary to remind the reader, that this observation refers to the literature of the United States of America.

name had scaled that mighty barrier, and made us known where our institutions and modes of life were hardly better understood than those of the natives of our forests.

We are accustomed to console ourselves for the absence of a commanding literature, by urging our superiority to other nations in our institutions for the diffusion of elementary knowledge through all classes of the community. We have here just cause for boasting, though perhaps less than we imagine. That there are gross deficiencies in our common schools, and that the amount of knowledge which they communicate, when compared with the time spent in its acquisition, is lamentably small, the community begin to feel. There is a crying need for a higher and more quickening kind of instruction than the labouring part of society have yet received, and we rejoice that the cry begins to be heard. But allowing our elementary institutions to be ever so perfect, we confess that they do not satisfy us. We want something more. A dead level of intellect, even if it should rise above what is common in other nations, would not answer our wishes and hopes for our country. We want great minds to be formed among us, minds which shall be felt afar, and through which we may act on the world. We want the human intellect to do its utmost here. We want this people to obtain a claim on the gratitude of the human race, by adding strength to the foundation, and fulness and splendour to the developement of moral and religious truth; by originality of thought, by discoveries of science, and by contributions to the refining pleasures of taste and imagination.

With these views we do and must lament, that, however we surpass other nations in providing for, and spreading elementary instruction, we fall behind many in provision for the liberal training of the intellect, for forming great scholars, for communicating that profound knowledge, and that thirst for higher truths, which can alone originate a commanding literature. The truth ought to be known. There is among us much superficial knowledge, but little severe, persevering research; little of that consuming passion for new truth, which

makes outward things worthless ; little resolute devotion to a high intellectual culture. There is nowhere a literary atmosphere, or such an accumulation of literary influence, as determines the whole strength of the mind to its own enlargement, and to the manifestation of itself in enduring forms. Few among us can be said to have followed out any great subject of thought patiently, laboriously, so as to know thoroughly what others have discovered and taught concerning it, and thus to occupy a ground from which new views may be gained. Of course exceptions are to be found. This country has produced original and profound thinkers. We have named Franklin, and we may name Edwards, one of the greatest men of his age, though unhappily his mind was lost, in a great degree, to literature, and, we fear, to religion, by vassalage to a false theology. His work on the Will throws, indeed, no light on human nature, and, notwithstanding the nobleness of the subject, gives no great or elevated thoughts ; but as a specimen of logical acuteness and controversial power, it certainly ranks in the very highest class of metaphysical writings. We might also name living authors who do honour to their country. Still, we must say, we chiefly prize what has been done among us, as a promise of higher and more extensive effort. Patriotism, as well as virtue, forbids us to burn incense to national vanity. The truth should be seen and felt. In an age of great intellectual activity, we rely chiefly for intellectual excitement and enjoyment on foreign minds, nor is our own mind felt abroad. Whilst clamouring against dependence on European manufactures, we contentedly rely on Europe for the nobler and more important fabrics of the intellect. We boast of our political institutions, and receive our chief teachings, books, impressions, from the school of monarchy. True, we labour under disadvantages. But if our liberty deserve the praise which it receives, it is more than a balance for these. We believe that it is. We believe that it does open to us an indefinite intellectual progress. Did we not so regard it, we should value it little. If hereditary governments minister most to the growth of the

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mind, it were better to restore them than to cling to a barren freedom. Let us not expose liberty to this reproach. Let us prove, by more generous provisions for the diffusion of elementary knowledge, for the training of great minds, and for the joint culture of the moral and intellectual powers, that we are more and more instructed, by freedom, in the worth and greatness of human nature, and in the obligation of contributing to its strength and glory.

We have spoken of the condition of our literature. We now proceed to the consideration of the causes which obstruct its advancement ; and we are immediately struck by one so prevalent as to deserve distinct notice. We refer to the common doctrine, that we need in this country, useful knowledge rather than profound, extensive, and elegant literature, and that this last, if we covet it, may be imported from abroad in such variety and abundance, as to save us the necessity of producing it among ourselves. How far are these opinions just ? This question we purpose to answer.

That useful knowledge should receive our first and chief care, we mean not to dispute. But in our views of utility, we may differ from some who take this position. There are those who confine this term to the necessities and comforts of life, and to the means of producing them. And is it true, that we need no knowledge, but that which clothes and feeds us ? Is it true, that all studies may be dispensed with, but such as teach us to act on matter, and to turn it to our use ? Happily, human nature is too stubborn to yield to this narrow utility. It is interesting to observe how the very mechanical arts, which are especially designed to minister to the necessities and comforts of life, are perpetually passing these limits ; how they disdain to stop at mere convenience. A large and increasing proportion of mechanical labour is given to the gratification of an elegant taste. How simple would be the art of building, if it limited itself to the construction of a comfortable shelter. How many ships should we dismantle, and how many busy trades put to rest, were dress and furniture reduced to

the standard of convenience. This 'utility' would work a great change in town and country, would level to the dust the wonders of architecture, would annihilate the fine arts, and blot out innumerable beauties, which the hand of taste has spread over the face of the earth. Happily, human nature is too strong for the utilitarian. It cannot satisfy itself with the convenient. No passion unfolds itself sooner than the love of the ornamental. The savage decorates his person, and the child is more struck with the beauty, than the uses of its raiment. So far from limiting ourselves to convenient food and raiment, we enjoy but little a repast which is not arranged with some degree of order and taste ; and a man who should consult comfort alone in his wardrobe, would find himself an unwelcome guest in circles which he would very reluctantly forego. We are aware that the propensity to which we have referred, often breaks out in extravagance and ruinous luxury. We know, that the love of ornament is often vitiated by vanity, and that, when so perverted, it impairs, sometimes destroys, the soundness and simplicity of the mind, and the relish for true glory. Still, it teaches even in its excesses, that the idea of beauty is an indestructible principle of our nature, and this single truth is enough to put us on our guard against vulgar notions of utility.

We have said that we prize, as highly as any, useful knowledge. But by this we mean knowledge which answers and ministers to our complex and various nature ; we mean that which is useful, not only to the animal man, but to the intellectual, moral, and religious man ; useful to a being of spiritual faculties, whose happiness is to be found in their free and harmonious exercise. We grant, that there is a primary necessity for that information and skill by which subsistence is earned, and life is preserved ; for it is plain that we must live, in order to act and improve. But life is the means ; action and improvement the end ; and who will deny that the noblest utility belongs to that knowledge, by which the chief purpose of our creation is accomplished ? According to these views, a people should honour and cultivate,

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as unspeakably useful, that literature which corresponds to, and calls forth the highest faculties; which expresses and communicates energy of thought, fruitfulness of invention, force of moral purpose, a thirst for the true, and a delight in the beautiful. According to these views, we attach special importance to those branches of literature, which relate to human nature, and which give it a consciousness of its own powers. History has a noble use, for it shows us human beings in various and opposite conditions, in their strength and weakness, in their progress and relapses, and thus reveals the causes and means by which the happiness and virtue of the race may be enlarged. Poetry is useful, by touching deep springs in the human soul; by giving voice to its more delicate feelings; by breathing out and making more intelligible, the sympathy which subsists between the mind and the outward universe; by creating beautiful forms or manifestations for great moral truths. Above all, that higher philosophy, which treats of the intellectual and moral constitution of man, of the foundation of knowledge, of duty, of perfection, of our relations to the spiritual world, and especially to God; this has a usefulness so peculiar as to throw other departments of knowledge into obscurity; and a people among whom this does not find honour, has little ground to boast of its superiority to uncivilized tribes. It will be seen from these remarks, that utility, with us, has a broad meaning. In truth, we are slow to condemn as useless, any researches or discoveries of original and strong minds, even when we discern in them no bearing on any interests of mankind; for all truth is of a prolific nature, and has connections not immediately perceived; and it may be that what we call vain speculations, may, at no distant period, link themselves with some new facts or theories, and guide a profound thinker to the most important results. The ancient mathematician, when absorbed in solitary thought, little imagined that his theorems, after the lapse of ages, were to be applied by the mind of Newton to the solution of the mysteries of the universe, and not only to guide the astronomer through the heavens, but the navi-

gator through the pathless ocean. For ourselves we incline to hope much from truths, which are particularly decried as useless ; for the noblest and most useful truth is of an abstract or universal nature ; and yet the abstract, though susceptible of infinite application, is generally, as we know, opposed to the practical.

We maintain that a people, which has any serious purpose of taking a place among improved communities, should studiously promote within itself every variety of intellectual exertion. It should resolve strenuously to be surpassed by none. It should feel that mind is the creative power, through which all the resources of nature are to be turned to account, and by which a people is to spread its influence, and establish the noblest form of empire. It should train within itself men able to understand and to use whatever is thought and discovered over the whole earth. The whole mass of human knowledge should exist among a people, not in neglected libraries, but in its higher minds. Among its most cherished institutions, should be those, which will insure to it ripe scholars, explorers of ancient learning, profound historians, and mathematicians, intellectual labourers devoted to physical and moral science, and to the creation of a refined and beautiful literature.

Let us not be misunderstood. We have no desire to rear in our country a race of pedants, of solemn triflers, of laborious commentators on the mysteries of a Greek accent or a rusty coin. We would have men explore antiquity, not to bury themselves in its dust, but to learn its spirit, and so to commune with its superior minds, as to accumulate on the present age, the influences of whatever was great and wise in former times. What we want, is, that those among us, whom God has gifted to comprehend whatever is now known, and to rise to new truths, may find aids and institutions to fit them for their high calling, and may become at once springs of a higher intellectual life to their own country, and joint workers with the great of all nations and times in carrying forward their race.

We know that it will be said, that foreign scholars, bred

under institutions which this country cannot support, may do our intellectual work, and send us books and learning to meet our wants. To this we have much to answer. In the first place, we reply, that to avail ourselves of the higher literature of other nations, we must place ourselves on a level with them. The products of foreign machinery we can use, without any portion of the skill which produced them. But works of taste and genius, and profound investigations of philosophy, can only be estimated and enjoyed, through a culture and power corresponding to that from which they sprung.

In the next place, we maintain, that it is an immense gain to a people, to have in its own bosom, among its own sons, men of distinguished intellect. Such men give a spring and life to a community by their presence, their society, their fame; and what deserves remark, such men are nowhere so felt as in a republic like our own; for here the different classes of society flow together and act powerfully on each other, and a free communication, elsewhere unknown, is established between the gifted few and the many. It is one of the many good fruits of liberty, that it increases the diffusiveness of intellect; and accordingly a free country is above all others false to itself, in withholding from its superior minds, the means of enlargement.

We next observe, and we think the observation important, that the facility with which we receive the literature of foreign countries, instead of being a reason for neglecting our own, is a strong motive for its cultivation. We mean not to be paradoxical, but we believe that it would be better to admit no books from abroad, than to make them substitutes for our own intellectual activity. The more we receive from other countries, the greater the need of an original literature. A people, into whose minds the thoughts of foreigners are poured perpetually, needs an energy within itself to resist, to modify this mighty influence, and without it, will inevitably sink under the worst bondage, will become intellectually tame and enslaved. We have certainly no desire to complete our restrictive system, by adding to it a literary non-intercourse

law. We rejoice in the increasing intellectual connection between this country and the old world. But sooner would we rupture it, than see our country sitting passively at the feet of foreign teachers. It were better to have no literature, than to form ourselves unresistingly on a foreign one. The true sovereigns of a country are those who determine its mind, its modes of thinking, its tastes, its principles; and we cannot consent to lodge this sovereignty in the hands of strangers. A country, like an individual, has dignity and power only in proportion as it is self-formed. There is a great stir to secure to ourselves the manufacturing of our own clothing. We say, let others spin and weave for us, but let them not think for us. A people, whose government and laws are nothing but the embodying of public opinion, should jealously guard this opinion against foreign dictation. We need a literature to counteract, and to use wisely the literature which we import. We need an inward power proportionate to that which is exerted on us, as the means of self-subsistence. It is particularly true of a people, whose institutions demand for their support a free and bold spirit, that they should be able to subject to a manly and independent criticism, whatever comes from abroad. These views seem to us to deserve serious attention. We are more and more a reading people. Books are already among the most powerful influences here. The question is, Shall Europe, through these, fashion us after its pleasure? Shall America be only an echo of what is thought and written under the aristocracies beyond the ocean?

Another view of the subject is this. A foreign literature will always, in a measure, be foreign. It has sprung from the soul of another people, which, however like, is still not our own soul. Every people has much in its own character and feelings, which can only be embodied by its own writers, and which, when transfused through literature, makes it touching and true, like the voice of our earliest friend.

We now proceed to an argument in favour of native literature, which, if less obvious, is, we believe, not less

sound, than those now already adduced. We have hitherto spoken of literature as the expression, the communication of the higher minds in a community. We now add, that it does much more than is commonly supposed, to *form* such minds, so that without it, a people wants one of the chief means of educating or perfecting talent and genius. One of the great laws of our nature, and a law singularly important to social beings, is, that the intellect enlarges and strengthens itself by expressing worthily its best views. In this, as in other respects, it is more blessed to give than to receive. Superior minds are formed, not merely by solitary thought, but almost as much by communication. Great thoughts are never fully possessed, till he who has conceived them has given them fit utterance. One of the noblest and most invigorating labours of genius, is to clothe its conceptions in clear and glorious forms, to give them existence in other souls. Thus literature creates, as well as manifests, intellectual power, and without it, the highest minds will never be summoned to the most invigorating action.

We doubt whether a man ever brings his faculties to bear with their whole force on a subject, until he writes upon it for the instruction or gratification of others. To place it clearly before others, he feels the necessity of viewing it more vividly himself. By attempting to seize his thoughts, and fix them in an enduring form, he finds them vague and unsatisfactory, to a degree which he did not suspect, and toils for a precision and harmony of views, of which he never before felt the need. He places his subject in new lights; submits it to a searching analysis; compares and connects with it his various knowledge; seeks for it new illustrations and analogies; weighs objections, and through these processes often arrives at higher truths than he first aimed to illustrate. Dim conceptions grow bright. Glorious thoughts, which had darted as meteors through the mind, are arrested, and gradually shine with a sunlike splendour, with prolific energy, on the intellect and heart. It is one of the chief distinctions of a great mind, that it is prone to rush into twilight regions, and to catch faint glimmerings of distant and un-

bounded prospects ; and nothing perhaps aids it more to pierce the shadows which surround it, than the labour to unfold to other minds the indistinct conceptions which have dawned on its own. Even where composition yields no such fruits, it is still a great intellectual help. It always favours comprehensive and systematical views. The laborious distribution of a great subject, so as to assign to each part or topic its just position and due proportion, is singularly fitted to give compass and persevering force of thought.

If we confine ourselves simply to the consideration of style, we shall have reason to think that a people among whom this is neglected, wants one important intellectual aid. In this, great power is exerted, and by exertion increased. To the multitude, indeed, language seems so natural an instrument, that to use it with clearness and energy, seems no great effort. It is framed, they think, to the writer's hand, and so continually employed as to need little thought or skill. But in nothing is the creative power of a gifted writer seen more than in his style. True, his words may be found in the dictionary. But there they lie disjointed and dead. What a wonderful life does he breathe into them, by compacting them into his sentences. Perhaps he uses no term which has not been hackneyed by ordinary writers ; and yet with these vulgar materials what miracles does he achieve. What a world of thought does he condense into a phrase. By new combinations of common words, what delicate hues or what a blaze of light, does he pour over his subject. Power of style depends very little on the structure or copiousness of the language which the writer of genius employs, but chiefly, if not wholly, on his own mind. The words arranged in his dictionary, are no more fitted to depict his thoughts, than the block of marble in the sculptor's shop, to show forth the conceptions which are dawning in his mind. Both are inert materials. The power which pervades them, comes from the soul ; and the same creative energy is manifested in the production of a noble style, as in extracting beautiful forms from lifeless stone. How unfaithful, then, is a na-

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tion to its own intellect, in which grace and force of style receive no culture.

The remarks now made on the importance of literature as a means of educating talent and genius, we are aware, do not apply equally to all subjects or kinds of knowledge. In the exact or physical sciences, a man may acquire much without composition, and may make discoveries without registering them. Even here, however, we believe, that, by a systematic developement of his views in a luminous style, he will bring great aid to his own faculties, as well as to others'. It is on the vast subjects of morals and human nature, that the mind especially strengthens itself by elaborate composition; and these, let it be remembered, form the staple of the highest literature. Moral truth, under which we include every thing relating to mind and character, is of a refined and subtle, as well as elevated nature, and requires the joint and full exercise of discrimination, invention, imagination, and sensibility, to give it effectual utterance. A writer who would make it visible and powerful, must strive to join an austere logic to a fervent eloquence; must place it in various lights; must create for it interesting forms; must wed it to beauty; must illuminate it by similitudes and contrasts; must show its correspondence with the outward world, perhaps must frame for it a vast machinery of fiction. How invigorating are these efforts! Yet it is only in writing, in elaborate composition, that they are deliberately called forth and sustained, and without literature they would almost cease. It may be said of many truths, that greater intellectual energy is required to express them with effect, than to conceive them; so that a nation, which does not encourage this expression, impoverishes so far its own mind. Take for example, Shakspeare's Hamlet. This is a development of a singularly interesting view of human nature. It shows us a mind, to which life is a burden; in which the powers of meditation and feeling are disproportioned to the active powers; which sinks under its own weight, under the consciousness of wanting energies commensurate with its visions of good, with its sore trials, and

with the solemn task which is laid upon it. To conceive clearly this form of human nature, shows indeed the genius of the writer. But what a new power is required to bring it out in such a drama as Shakspeare's; to give it life and action; to invent for it circumstances and subordinate characters, fitted to call it forth; to give it tones of truth and nature; to show the hues which it casts over all the objects of thought. This intellectual energy we all perceive; and this was not merely *manifested* in Shakspeare's work, but without such a work, it would not have been awakened. His invention would have slumbered, had he not desired to give forth his mind in a visible and enduring form. Thus literature is the nurse of genius. Through this, genius learns its own strength, and continually accumulates it; and of course, in a country without literature, genius, however liberally bestowed by the Creator, will languish, and will fail to fulfil its great duty of quickening the mass amidst which it lives.

We come now to our last, and what we deem a weighty argument in favour of a native literature. We desire and would cherish it, because we hope from it important aids to the cause of truth and human nature. We believe, that a literature, springing up in this new soil, would bear new fruits, and, in some respects, more precious fruits, than are elsewhere produced. We know that our hopes may be set down to the account of that national vanity, which, with too much reason, is placed by foreigners among our besetting sins. But we speak from calm and deliberate conviction. We are inclined to believe, that, as a people, we occupy a position, from which the great subjects of literature may be viewed more justly than from those which most other nations hold. Undoubtedly we labour under disadvantages. We want the literary apparatus of Europe; her libraries, her universities, her learned institutions, her race of professed scholars, her spots consecrated by the memory of sages, and a thousand stirring associations, which hover over ancient nurseries of learning. But the mind is not a local power. Its spring is within itself, and under the
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inspiration of liberal and high feeling, it may attain and worthily express nobler truth than outward helps could reveal.

The great distinction of our country, is, that we enjoy some peculiar advantages for understanding our own nature. Man is the great subject of literature, and juster and profounder views of man may be expected here than elsewhere. In Europe, political and artificial distinctions have, more or less, triumphed over and obscured our common nature. In Europe, we meet kings, nobles, priests, peasants. How much rarer is it to meet *men*; by which we mean, human beings conscious of their own nature, and conscious of the utter worthlessness of all outward distinctions, compared with what is treasured up in their own souls. Man does not value himself as a man. It is for his blood, his rank, or some artificial distinction, and not for the attributes of humanity, that he holds himself in respect. The institutions of the old world all tend to throw obscurity over what we most need to know, and that is, the worth and claims of a human being. We know that great improvements in this respect are going on abroad. Still the many are too often postponed to the few. The mass of men are regarded as instruments to work with, as materials to be shaped for the use of their superiors. That consciousness of our own nature, which contains, as a germ, all nobler thoughts, which teaches us at once self-respect and respect for others, and which binds us to God by filial sentiment and hope, this has been repressed, kept down by establishments founded in force; and literature, in all its departments, bears, we think, the traces of this inward degradation. We conceive that our position favours a juster and profounder estimate of human nature. We mean not to boast, but there are fewer obstructions to that moral consciousness, that consciousness of humanity, of which we have spoken. Man is not hidden from us by as many disguises as in the old world. The essential equality of all human beings, founded on the possession of a spiritual, progressive, immortal nature, is, we hope, better understood; and nothing, more than this single

conviction, is needed to work the mightiest changes in every province of human life and of human thought.

We have stated what seems to us our most important distinction. But our position has other advantages. The mere circumstance of its being a new one, gives reason to hope for some new intellectual activity, some fresher views of nature and life. We are not borne down by the weight of antiquated institutions, time-hallowed abuses, and the remnants of feudal barbarism. The absence of a religious establishment, is an immense gain; as far as originality of mind is in question; for an establishment, however advantageous in other respects, is, by its nature, hostile to discovery and progress. To keep the mind where it is, to fasten the notions of one age on all future time, is its aim and proper business; and if it happened, as has generally been the case, to grow up in an age of strife and passion, when, as history demonstrates, the church was overrun with error, it cannot but perpetuate darkness and mental bondage. Among us, intellect, though far from being free, has broken some of the chains of other countries, and is more likely, we conceive, to propose to itself its legitimate object, truth, everlasting and universal truth.

We have no thought of speaking contemptuously of the literature of the old world. It is our daily nutriment. We feel our debt to be immense to the glorious company of pure and wise minds, which in foreign lands have bequeathed us in writing their choicest thoughts and holiest feelings. Still we feel, that all existing literature has been produced under influences, which have necessarily mixed with it much error and corruption, and that the whole of it ought to pass, and must pass, under rigorous review. For example, we think that the history of the human race is to be rewritten. Men imbued with the prejudices which thrive under aristocracies and state religions, cannot understand it. Past ages, with their great events, and great men, are to undergo, we think, a new trial, and to yield new results. It is plain, that history is already viewed under new aspects, and we believe that the true principles for studying and writing

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it, are to be unfolded here, at least as rapidly as in other countries. It seems to us that in literature an immense work is yet to be done. The most interesting questions to mankind, are yet in debate. Great principles are yet to be settled in criticism, in morals, in politics; and above all, the true character of religion is to be rescued from the disguises and corruptions of ages. We want a reformation. We want a literature, in which genius will pay supreme, if not undivided homage, to truth and virtue; in which the childish admiration of what has been called greatness, will give place to a wise moral judgment; which will breathe reverence for the mind, and elevating thoughts of God. The part which this country is to bear in this great intellectual reform, we presume not to predict. We feel, however, that if true to itself, it will have the glory and happiness of giving new impulses to the human mind. This is our cherished hope. We should have no heart to encourage native literature, did we not hope that it would become instinct with a new spirit. We cannot admit the thought, that this country is to be only a repetition of the old world. We delight to believe that God, in the fulness of time, has brought a new continent to light, in order that the human mind should move here with a new freedom, should frame new social institutions, should explore new paths, and reap new harvests. We are accustomed to estimate nations by their creative energies, and we shall blush for our country, if, in circumstances so peculiar, original, and creative, it shall satisfy itself with a passive reception and mechanical reiteration of the thoughts of strangers.

We have now completed our remarks on the importance of a native literature. The next great topic is the means of producing it; and here our limits forbid us to enlarge; yet we cannot pass it over in silence. A primary and essential means of the improvement of our literature, is, that, as a people, we should feel its value, should desire it, should demand it, should encourage it, and should give it a hearty welcome. It will come if called for, and under this conviction, we have now la-

boured to create a want for it in the community. We say, that we must call for it ; by which we mean, not merely that we must invite it by good wishes and kind words, but must make liberal provision for intellectual education. We must enlarge our literary institutions, secure more extensive and profound teaching, and furnish helps and resources to men of superior talent for continued, laborious research. As yet, intellectual labour, devoted to a thorough investigation and a full development of great subjects, is almost unknown among us ; and without it, we shall certainly rear few lasting monuments of thought. We boast of our primary schools. We want universities worthy of the name, where a man of genius and literary zeal, may possess himself of all that is yet known, and may strengthen himself by intercourse with kindred minds. We know it will be said, that we cannot afford these. But it is not so. We are rich enough for ostentation, for intemperance, for luxury. We can lavish millions on fashion, on furniture, on dress, on our palaces, on our pleasures ; but we have nothing to spend for the mind. Where lies our poverty ? In the purse, or in the soul ?

We have spoken of improved institutions as essential to an improved literature. We beg, however, not to be misunderstood, as if these were invested with a creating power, or would necessarily yield the results which we desire. They are the means, not causes of advancement. Literature depends on individual genius, and this, though fostered, cannot be created by outward helps. No human mechanism can produce original thought. After all the attempts to explain by education the varieties of intellect, we are compelled to believe that minds, like all the other products of nature, have original and indestructible differences, that they are not exempted from that great and beautiful law, which joins with strong resemblances as strong diversities ; and, of consequence, we believe, that the men, who are to be the lights of the world, bring with them their commission and power from God. Still, whilst institutions cannot create, they may and do unfold genius ; and for want of them, great minds

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often slumber or run to waste, whilst a still larger class, who want genius, but possess admirable powers, fail of that culture, through which they might enjoy and approach their more gifted brethren.

— A people, as we have said, are to give aid to literature by founding wise and enlarged institutions. They may do much more. They may exert a nobler patronage. By cherishing in their own breasts the love of truth, virtue, and freedom, they may do much to nurse and kindle genius in its favoured possessors. There is a constant reaction between a community and the great minds which spring up within it, and they form one another. In truth, great minds are developed more by the spirit and character of the people to which they belong, than by all other causes. Thus, a free spirit, a thirst for new and higher knowledge in a community, does infinitely more for literature, than the most splendid benefactions under despotism. A nation under any powerful excitement, becomes fruitful of talent. Among a people called to discuss great questions, to contend for great interests, to make great sacrifices for the public weal, we always find new and unsuspected energies of thought brought out. A mercenary, selfish, luxurious, sensual people, toiling only to secure the pleasures of sloth, will often communicate their own softness and baseness to the superior minds which dwell among them. In this impure atmosphere, the celestial spark burns dim; and well will it be, if God's great gift of genius be not impiously prostituted to lust and crime.

In conformity with the views now stated, we believe that literature is to be carried forward, here and elsewhere, chiefly by some new and powerful impulses communicated to society; and it is a question naturally suggested by this discussion, from what impulse, principle, excitement, the highest action of the mind may now be expected. When we look back, we see that literature has been originated and modified by a variety of principles; by patriotism and national feeling, by reverence for antiquity, by the spirit of innovation, by enthusiasm, by scepticism, by the passion for fame, by ro-

mantic love, and by political and religious convulsions. Now we do not expect from these causes, any higher action of the mind, than they have yet produced. Perhaps most of them have spent their force. The very improvements of society seem to forbid the manifestation of their former energy. For example, the patriotism of antiquity and the sexual love of chivalrous ages, which inspired so much of the old literature, are now seen to be feverish and vicious excesses of natural principles, and have gone, we trust, never to return.

Are we asked then to what impulse or power, we look for a higher literature than has yet existed? We answer, to a new action or development of the religious principle. This remark will probably surprise not a few of our readers. It seems to us, that the energy with which this principle is to act on the intellect, is hardly suspected. Men identify religion with superstition, with fanaticism, with the common forms of Christianity; and seeing it arrayed against intellect, leagued with oppression, fettering inquiry, and incapable of being blended with the sacred dictates of reason and conscience, they see in its progress only new encroachments on free and enlightened thinking. Still, man's relation to God is the great quickening truth, throwing all other truths into insignificance, and a truth, which, however obscured and paralysed by the many errors which ignorance and fraud have hitherto linked with it, has ever been a chief spring of human improvement. We look to it as the true life of the intellect. No man can be just to himself, can comprehend his own existence, can put forth all his powers with an heroic confidence, can deserve to be the guide and inspirer of other minds, till he has risen to communion with the Supreme Mind; till he feels his filial connection with the Universal Parent; till he regards himself as the recipient and minister of the Infinite Spirit; till he feels his consecration to the ends which religion unfolds; till he rises above human opinion, and is moved by a higher impulse than fame.

From these remarks it will be seen, that our chief hopes of an improved literature rest on our hopes of an im-

proved religion. From the prevalent theology, which has come down to us from the dark ages, we hope nothing. It has done its best. All that can grow up under its sad shade, has already been brought forth. It wraps the Divine nature and human nature in impenetrable gloom. It overlays Christianity with technical, arbitrary dogmas. True faith is of another lineage. It comes from the same source with reason, conscience, and our best affections, and is in harmony with them all. True faith is essentially a moral conviction; a confidence in the reality and immutableness of moral distinctions; a confidence in disinterested virtue or in spiritual excellence as the supreme good; a confidence in God as its fountain and almighty friend, and in Jesus Christ as having lived and died to breathe it into the soul; a confidence in its power, triumphs, and immortality; a confidence, through which outward changes, obstructions, disasters, sufferings, are overcome, or rather made instruments of perfection. Such a faith, unfolded freely and powerfully, must "work mightily" on the intellect as well as on practice. By revealing to us the supreme purpose of the Creator, it places us, as it were, in the centre of the universe, from which the harmonies, true relations, and brightest aspects of things are discerned. It unites calmness and enthusiasm, and the concord of these seemingly hostile elements is essential to the full and healthy action of the creative powers of the soul. It opens the eye to beauty and the heart to love. Literature, under this influence, will become more ingenuous and single-hearted; will penetrate farther into the soul; will find new interpretations of nature and life; will breathe a martyr's love of truth, tempered with a never-failing charity; and, whilst sympathizing with all human suffering, will still be pervaded by a healthful cheerfulness, and will often break forth in tones of irrepressible joy, responsive to that happiness which fills God's universe.

We cannot close our remarks on the means of an improved literature, without offering one suggestion. We earnestly recommend to our educated men a more extensive acquaintance with the intellectual labours of con-

tinental Europe. Our reading is confined too much to English books, and especially to the more recent publications of Great Britain. In this we err. We ought to know the different modes of viewing and discussing great subjects in different nations. We should be able to compare the writings of the highest minds in a great variety of circumstances. Nothing can favour more our own intellectual independence and activity. Let English literature be ever so fruitful and profound, we should still impoverish ourselves by making it our sole nutriment. We fear, however, that at the present moment English books want much which we need. The intellect of that nation is turned now to what are called practical and useful subjects. Physical science goes forward, and what is very encouraging, it is spread with unexampled zeal through all classes of the community. Abuses of government, of the police, of the penal code, of charity, of poor laws, and corn laws are laboriously explored. General education is improved. Science is applied to the arts with brilliant success. We see much good in progress. But we find little profound or fervid thinking, expressed in the higher forms of literature. The noblest subjects of the intellect receive little attention. We see an almost total indifference to intellectual and moral science. In England there is a great want of philosophy, in the true sense of that word. If we examine her reviews, in which much of the intellectual power of the nation is expended, we meet perpetually a jargon of criticism, which shows a singular want of great and general principles in estimating works of art. We have no ethical work of any living English writer to be compared with that of Degerando, entitled, "*Du Moral Perfectionnement* ;" and although we have little respect for the rash generalizations of the bold and eloquent Cousin, yet the interest which his metaphysics awaken in Paris, is in our estimation a better presage than the lethargy which prevails on such topics in England. In these remarks we have no desire to depreciate the literature of England, which, taken as a whole, we regard as the noblest monument of the human mind. We rejoice in our

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descent from England, and esteem our free access to her works of science and genius as among our high privileges. Nor do we feel as if her strength were spent. We see no wrinkles on her brow, no decrepitude in her step. At this moment she has authors, especially in poetry and fiction, whose names are "familiar in our mouths as household words," and who can never perish but with her language. Still, we think, that at present her intellect is labouring more for herself than for mankind, and that our scholars, if they would improve our literature, should cultivate an intimacy not only with that of England, but of continental Europe.

We have now finished our remarks on the importance and means of an improved literature among ourselves. Are we asked what we hope in this particular? We answer, much. We see reasons for anticipating an increased and more efficient direction of talent to this object. But on these we cannot enlarge. There is, however, one ground of expectation, to which we will call a moment's attention. We apprehend that literature is to make progress through an important change in society, which civilization and good institutions are making more and more apparent. It seems to us that, through these causes, political life is less and less regarded as the only or chief sphere for superior minds, and that influence and honour are more and more accumulated in the hands of literary and thinking men. Of consequence more and more of the intellect of communities is to be drawn to literature. The distinction between antiquity and the present times, in respect to the importance attached to political life, seems to us striking; and it is not an accidental difference, but founded on permanent causes which are to operate with increased power. In ancient times, every thing abroad and at home, threw men upon the public, and generated an intense thirst for political power. On the contrary, the improvement of later periods incline men to give importance to literature. For example, the instability of the ancient republics, the unsettled relations of different classes of society, the power of demagogues and orators, the intensity of factions, the want of moral and

religious restraints, the want of some regular organ for expressing the public mind, the want of precedents and precise laws for the courts of justice, these and other circumstances gave to the ancient citizen a feeling as if revolutions and convulsions were inseparable from society, turned his mind with unremitting anxiety to public affairs, and made a participation of political power an important, if not an essential means of personal safety.—Again, the ancient citizen had no home, in our sense of the word. He lived in the market, the forum, the place of general resort, and of course his attention was very much engrossed by affairs of state.—Again, religion, which now more than all things, throws a man upon himself, was in ancient times a public concern, and turned men to political life. The religion of the heart and closet was unknown. The relation of the gods to particular states, was their most prominent attribute, and to conciliate their favour to the community the chief end of worship. Accordingly religion consisted chiefly in public and national rites. In Rome the highest men in the state presided at the altar, and adding to their other titles that of Supreme Pontiff, performed the most solemn functions of the priesthood. Thus the whole strength of the religious principle was turned into political channels. The gods were thought to sustain no higher office than a political one, and of consequence this was esteemed the most glorious for men.—Once more, in ancient times political rank was vastly more efficient, whether for good or for evil, than at present, and of consequence was the object of a more insatiable ambition. It was almost the only way of access to the multitude. The public man held a sway over opinion, over his country, perhaps over foreign states now unknown. It is the influence of the press and of good institutions to reduce the importance of the man of office. In proportion as private individuals can act on the public mind; in proportion as a people read, think, and have the means of expressing and enforcing their opinions; in proportion as laws become fixed, known and sanctioned by the moral sense of the community; in proportion as the interests of the state, the principles of

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administration, and all public measures, are subjected to free and familiar discussion, government becomes a secondary influence. The power passes into the hands of those who think, write, and spread their minds far and wide. Accordingly literature is to become more and more the instrument of swaying men, of doing good, of achieving fame. The contrast between ancient and modern times, in the particulars now stated, is too obvious to need illustration, and our great inference is equally clear. The vast improvements which in the course of ages have taken place in social order, in domestic life, in religion, in knowledge, all conspire to one result, all tend to introduce other and higher influences than political power, and to give to that form of intellectual effort, which we call literature, dominion over human affairs. Thus truth, we apprehend, is more and more felt, and from its influence, joined with our peculiar condition and free institutions, we hope for our country the happiness and glory of a pure, deep, rich, beautiful, and ennobling literature.



AN
OUTLINE
OF THE
LITERARY HISTORY
OF
MODERN GREECE.

BY ALEXANDER NEGRIS.

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THOMAS CLARK, 38, GEORGE STREET.

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AN
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MODERN GREECE.

THE deep interest taken by the people of this country in the fate of Greece, and the universal wish for the emancipation of that oppressed nation, have made every one well acquainted with the political and military events of the war recently waged by the cross against the crescent. But in regard to the intellectual condition, or, in other words, the literature of Modern Greece, very little is known either in the United States or Europe. Few, indeed, of the most eminent Greeks themselves understand the great points of difference between the language of Demosthenes and that of Coray. In the present article * we propose to sketch a brief outline of modern Greek literature, drawing our facts chiefly from the work of M. Rizo,† of whom it is slight praise to say, that he appears to be an enthusiast in his subject, and has treated it with a master's hand.

As introductory to our chief purpose, a few remarks on the ancient Greek language and literature will be necessary. "To speak of modern Greek by itself, without mention-

* It may be proper to mention that this article was written in 1829, during the Author's residence in America, and originally published in that country. The present reprint has been revised and somewhat enlarged by the Author.

† *Cours de Littérature Grecque Moderne, donné à Genève par JACOVAKY RIZO NEROULOS, Ancien Premier Ministre des Hospodars Grecs de Valachie et de Moldavie; publié par JEAN HUMBERT. Genève, 1828.*

ing the ancient, of which it constitutes an inseparable part, would be the same thing as to discuss the qualities of the branch of a tree, without taking into consideration the parent stem from which it is derived.

"Greek, from the most remote period to our own times, forms but one language ; a language which is perhaps the most rich, expressive, and agreeable to the ear that the world has ever seen ; but which is at the same time the most complicated, from its various idioms and its ambiguous constructions. These naturally arise from its literature embracing so extensive a period ; since authors, who have written at different epochs, must necessarily exhibit in their works some variations and peculiarities of style, such as take place in every country from the same causes ; the extent of which must depend upon the longer or shorter duration of time, and the nature of those events which operate upon the tastes, customs and manners of a people."*

The earliest poetry, which has come down from antiquity, is the mystical or religious, and has its origin in the theocratic form of government. It was introduced into Greece by the founders of the first colonies, who established oracles to speak according to their caprice by the mouth of priestesses. These were probably aided by the invention of hexameters, ascribed to the Pythian Phemonoë ; and hence it has been said, out of compliment to the fair half of creation, that, since Greek poetry owes its origin to a female, we are no longer to wonder at its surpassing beauty and sweetness. Then came the age of heroes and of wild deeds of war and prowess. Poetry tells us of the acts of Hercules, Perseus, Jason, Theseus. It escapes from the pupilage of the priestesses, and goes abroad upon the earth, celebrating feats of arms, and describing man and nature. Homer carried this kind of poetry to its highest elevation. He has been followed by imitators, but by no equals. To him, or rather to his poems, Greece was indebted for many of the great men, who were the glory and boast of their country. The age of Homer, content with having produced the father of poetry, presents us with nothing else remarkable, unless

* See Preface to Negris' *Modern Greek Proverbs*, p. vi.

it be the confederation of the Ionian colonies to resist the growing and menacing power of the kings of Lydia; a confederation not unlike that of the Swiss, or of the Hanseatic towns. Liberty, the mother of great men, was not parsimonious of her bounties under this republic; in proof of which it is enough to cite the names of Pythagoras, Thales, Hippocrates, Herodotus, and Simonides. This confederate republic declined at length under the reiterated attacks of the Medes and Persians, and Liberty fled for an asylum to Sparta and Athens, where she received the protection of the laws and institutions of Solon and Lycurgus. During this period the sages of Greece were occupied with the science of governing and the principles of public right, and abandoned the language of imagination and the rhythm of poetry for the more severe and simple style of prose, in which they explained the reciprocal duties of men in society. The most ancient prose authors wrote in the Ionic dialect, of whom Herodotus is an example. After these came the Attic prose writers, at the head of whom is Pericles, whose funeral Oration for the Athenians that died in the first year of the Peloponnesian war, is the most ancient fragment of Attic prose known to exist.

The victories of the Athenians and Lacedæmonians over the Persians, raised these two nations above the rest of Greece. Athens surpassed Sparta in literature, in the sciences, and in the fine arts. By her political preponderance, and by the moral ascendancy of her great writers, she became the arbitress of good taste, and the Attic dialect was everywhere the language of polished society. After having exhausted various kinds of versification, the poetic genius of Greece invoked Melpomene, and on the stage of Athens were represented the tragedies of Æschylus, Sophocles, and Euripides. This was the age of Grecian glory, when the language and the arts had attained their greatest perfection. Pericles and Alcibiades began a change that proved fatal; they aspired to govern, and their ambition could only be satisfied by corrupting the people. Let the death of Socrates, and the applause with which the populace received the impudent

railleries of Aristophanes, bear witness to the degradation that followed. Here ended the brilliant period of Greek literature. No more was seen that noble, harmonious, simple, elegant, and nervous style, which characterized the writers of former times. The Greek language, spread over an immense space by Alexander and his successors, disfigured and corrupted by foreign mixtures, lost by degrees its character and originality. The battle of Chæronea, where the independence of Greece expired; the universal monarchy of Alexander; his premature death; the interminable wars of his successors; Rome, the conqueror and tyrant of the world;—all these disastrous events gave a mortal blow to Grecian art and literature. The school of Alexandria, with a few exceptions, formed only plagiarists in poetry, insipid grammarians, sterile commentators, and dialecticians fruitful in unintelligible abstractions. The domination of Rome was not less pernicious. Mendicant sophists, charletans in literature, and philosophers without knowledge, inundated Rome, Alexandria, Syria, and Greece. Now and then a superior genius appeared, but eminent writers were rather imitators than inventors. Polybius, Lucian, Plutarch, Pausanias, are examples of high name, but still they are examples in point.

The seat of the Roman empire was transferred to Byzantium, and then the Latin tongue assumed a dominant influence. The court, the military, and the higher ranks affected to speak the language of their conquerors. Thus the Greek was corrupted anew; but the Eastern Church, always free, and always above political vicissitudes, preserved the original language of the Evangelists. It produced such men as Basil, Gregory, Cyril, and Chrysostom. In these models of Christian eloquence the Greek language seemed approaching its former purity and force, when all at once a host of sects sprang up, and spread darkness over the Church. Morals and the duties of men in society ceased to be preached, and deep and subtle points of theology were discussed in their stead. Of this jargon of obscure terms and vague ideas, the people could understand nothing. Constantinople

was a centre, which drew together strangers and soldiers from all nations; and in this great city all sorts of barbarous dialects were spoken, and the purity of the Greek became more and more corrupted.

Constantinople at length fell into the hands of Mahomet the Second, and many Greeks, distinguished for talents and merit, passed into Europe, where they excited a taste for studying their language and literature. But a language cultivated in a foreign country, says Rizo, is like an inanimate body, a mummy artificially embalmed, whole in all its parts, and capable of being preserved for ages, but without the hope of its ever giving the least sign of life. So it was with the ancient Greek in the hands of these teachers. But it is time for us to leave this branch of the subject, and to speak of the origin, formation, and progress of the modern Greek idiom.

"The present dialect, comprising all the advantages of the ancient, as rich, as flexible, as sonorous, but more simple, and consequently more easy than those in which the immortal *chefs-d'œuvres* of antiquity are written, is at this day so much studied by a great number of scholars, from their being convinced that its acquisition is essential to the full comprehension of the ancient, that we could, without difficulty, mention celebrated German Hellenists, who know it almost as well as their native tongue."*—In its great features, indeed, it is no other than the ancient language, which has undergone such modifications as time and circumstances have introduced in the manner of conceiving and expressing ideas. The chief alterations have been confined to the introduction of various words which, for the most part, though modern in form, have an ancient etymology, to certain peculiarities of nouns and verbs growing out of long usage, and to certain idioms which, however, in many cases may be shewn to have been occasionally used by the ancients.† It may be said, that the difference between the two dialects con-

* See Preface to Negris' Modern Greek Proverbs, p. viii.

† See Negris' Herodotus, Vol. I. Note on B. I. 120, l. 10; and Vol. II. Note on B. VII. 104, l. 21.

sists rather in the style, than in the basis of the language. In short, this new dialect partakes of the genius and colour of the modern idioms, without losing any thing of the ductility, the opulence, or variety of the ancient.

The Ottoman power, rooted at Constantinople, threatened to exterminate not only the political existence, but the religion, language, and manners of the Greeks. Providence favoured them in the midst of these perils; for Mahomet the Second, fearing the influence of the West, gave countenance to the Greek Church, and protected its patriarch. Gennadius Scholarius, the first patriarch elected by Mahomet after the taking of Constantinople, was a distinguished ecclesiastic, a friend of the Muses, and well understood the value of education. By his order the clergy of Constantinople wrote their polemic works in ancient Greek. He established a school near the patriarchal church; by degrees a large and valuable library of manuscripts was collected from different quarters and preserved here with great care; and the college, although not recognised by the government, acquired great renown.*

* 'It was Theotoky who, long after this period, suggested to Gregory Ghika, secretary and interpreter to the Ottoman Porte, the idea of visiting the remains of the library of the last Greek Emperors, preserved in the interior of the seraglio. Ghika, being on terms of intimacy with the person who guarded the treasures of the Ottoman empire, obtained permission to examine the library. The only thing he found worth taking away was a series of commentaries on the Old Testament. He took a copy of it and returned the manuscript.

'Notwithstanding this ill success of Ghika, it was always believed that there existed in the library of the seraglio lost works of the Latin and Greek classics. But General Sebastiani confirmed the testimony of Prince Ghika. This ambassador of France at Constantinople, esteemed by the Sultan, and enjoying an extraordinary influence with the Ottoman ministry, asked as a signal favour the permission of visiting the library in the seraglio. Selim not only granted this request, but ordered the guardian of the imperial treasure to show the ambassador the whole library, to give him time to examine it, and to offer him, as a present from the Sultan, such books as he might choose. Sebastiani examined scrupulously all the books contained in the imperial library, but he found only parchments on ecclesiastical matters, and he chose a manuscript of the New Testament.' *Cours de Littérature*, &c. p. 176.

Ancient Greek, philosophy, and literature were studied with ardour, and the honour of a professorship in this college was sought by the most eminent men.

During the interval between the taking of Constantinople and the end of the seventeenth century, other schools were established in different parts of Greece, as at Mount Athos, Jannina, Smyrna, Patmos, Corfu, Larissa. These seminaries from time to time sent out several distinguished men, as Corydalæus* of Athens, Notaras, Zygomalas, Dositheus patriarch of Jerusalem, Sebastos, Basil of Smyrna, and others. But it is nevertheless true, that till the beginning of the eighteenth century modern Greek was stationary; for it was not till after that period that the new literature assumed a separate form. Until then learned men wrote in the ancient dialect, affecting to despise the spoken language, much in the same way as in some of the countries of Europe, where scholars till very recently communicated their ideas to the world in barbarous Latin.

The space of time between the epoch when modern Greek began to be written, and the present day, that is, about a century and a quarter, may be divided into three distinct periods. The first comprehends the dawn of modern Greek literature, and extends from the commencement to the middle of the last century. The Turkish government accorded important privileges to the Greeks in choosing from among their numbers interpreters and the princes of Wallachia and Moldavia. The credit of these princes with the ministry was the means of meliorating the condition of the nation. Under their auspices letters were cultivated anew, schools established, and light extended. Ancient Greek was also studied with particular assiduity. The second period, which extends from the middle to the end of the century, was characterized by the introduction of the scientific knowledge of Europe into Greece. Many works on history, ethics,

* Theophilus Corydalæus, who lived at the beginning of the 17th century, prosecuted his studies in Italy: he wrote, in ancient Greek, various commentaries on Aristotle, and a treatise on Logic. His works have been used in the schools of Greece for nearly a century.

and philosophy were translated, and schools increased, several of which rose to be Lyceums and Universities. Numerous Greeks, after having studied in Europe, returned to their own country and devoted themselves to the honourable employment of public instruction. The third and most recent period has owed its success to the spirit of the analytical philosophy, which has been introduced into the systems of instruction, and above all, into the study of the Greek language. A noble and patriotic ambition has inspired the public teachers with a desire to raise their country from its degradation; men of superior qualifications have laboured to establish the modern and most improved methods of teaching, to infuse liberal and elevated ideas into their compatriots, to form the new language on regular principles, and in short to render the Greek people worthy to hold a place among the civilized nations of Europe.

The first period was rendered illustrious by the families of Mavrocordato, Mourouzi, Ypsilanti, and others who prepared the way for the second and third. Eugene Bulgaris* was among the number of those who attained eminence in the second period. Catharine, in the midst of her ambitious views, confided to his charge the education of the Grand Duke Constantine, and it was by her order that he translated into Homeric verse the *Æneid* of Virgil. His example was followed by Nicephorus Theotoky, who wrote a treatise on Physics and a complete course of Mathematics. Discontented in his own country he retired to Russia, where he was well received, and where he ended his days. Soon afterwards the irresistible force of the French arms, and the new ideas which the French revolution,—a revolution without example in its character, and the incidents of which gave a terrible shock to all nations,—spread everywhere, were nearly producing their full effect in Greece.

It was at this time that Riga, a native of Veletin in Thessaly, conceived the great project of freeing his country from the yoke of its oppressors. Attached to the

* See Appendix.

service of Prince Michael Soutzo, hospodar of Wallachia, he suddenly quitted that principality in 1796, and repaired to Vienna, where he associated himself with several other Greeks, who partook of his enthusiasm and united in his plan. But the project was whispered in the ears of the Austrian police before it was matured, and the unfortunate Riga was seized at Trieste just as he was ready to embark for the Peloponnesus. He was given up to the Turks and executed at Belgrade, a martyr to liberty, and the victim of a mean and cruel policy. Riga was the author of a work, in modern Greek, forming a popular course of Physics, and also of a geographical chart of Greece. These were his only scientific works. Deserting Euler and Newton, he courted the muse of Tyrtæus, and composed patriotic songs, which he hoped one day to sing at the head of his Greek battalions. "Correctly written in modern Greek," says Rizo, "and embellished with the charms of heroic poetry, these songs gained a still wider influence by the music in which they were sung. Throughout Greece nothing was heard but the songs of Riga; the young people repeated them everywhere in their little circles and their festivities; in the winter by the fire-side, in the summer under the shade of the olive and plane trees. These songs braved the ears of the barbarians even in the capital of the Sultan. In the parties of pleasure given by the Turkish ministers, I have myself heard them order the Greek musicians to sing the air,—

Δεῦτε παῖδες τῶν Ἑλλήνων !

The air of this song afforded great pleasure to the Turks, who only knew by heart the first words, without having any curiosity to ascertain their sense. It is an imitation of the *Marseilles Hymn*."

The spirit and purpose of this song will be seen by the following literal translation of the two first stanzas.

'Come on, sons of Greece, sons of renowned men !
The day of glory is arrived. Bones of the illustrious dead, come forth, spring from your tombs and resume life anew ; behold your country in groans and tears.

To arms, Greeks, to arms ! Let the blood of our enemy
flow in rivers at our feet !

‘ Brave Greeks ! Sons of Spartans ! All those who
are united to us by a common faith, approach, let us em-
brace as brothers, and with our sword in hand take this
solemn oath,—“ In the name of my faith, in the name of
my country, in the name of my hope in God, I draw
the sword, and I will not return it to its scabbard, till the
oppressive race of cruel Mussulmans shall be extinct.”
To arms, Greeks ! to arms ; let us cleave the heads of
the infidel Turks !’ *

The fate of Riga was a signal of mourning throughout
Greece, and it kindled in his countrymen the desire of
vengeance. It taught them also the necessity of con-
certing future projects with more caution. At this epoch
a better mode of instruction was adopted. Hitherto the
classic authors had been studied chiefly for their style,
their rhetoric, or their eloquence. A different system
began now to come into use, by which the professors
taught the youth not merely to detect the beauties of

* The Editor feels much pleasure in presenting to the public the
following patriotic ode, obligingly communicated by the Author.

‘ΑΡΗΤΟΝ ἌΣΜΑ.

- | | |
|-----------------------|-----------------------|
| “ Ἔθνος Ἑλλήνων, | 20 Νίκην βιβαίαν |
| “ Ἔθνος γυναιῶν, | Κατὰ τυράντων |
| “ Ἐλευθερίας | Τῶν ἀλλογλώσσων |
| “ Ἡ ὄρεα ἤλθι· | Πυκνὰς τὰς τάξεις, |
| 5 Δούλους μᾶς θίλουν, | Τάγματ’ ἀνδρείᾳ, |
| Πλὴν αἶς φανῶμεν, | 25 Στερεῖξτ’ ἀλλήλους |
| Στρατὸς ἡρώων | “ Ὡς τὴν φωνὴν ἌΡΗΣ. |
| Μεγαλοφρόνων. | “ Ἡ πατρὶς κρᾶζι |
| “ Ἑλλὰς ἐξαίφνης | Εἰς τοὺς πολίτας· |
| 10 “ Ἐνθυμήθη | “ Τώρα ἡ ὥρα |
| Φωνὴν τῆς δόξης | 80 “ Γησίων τίκτων |
| Κ’ ἰλευθερίας· | “ Νὰ διῆλθουν στήθος |
| “ Ἀγίτι παιδὶς, | “ Εἰς τὸν ἰχθὺν μου |
| “ Ἀγῶμεν πάντες, | “ Πυρρόλων πάλλαις, |
| 15 Κατὰ πυρρόλων | “ Ἰδοὺ θυσία !” |
| Διὰ σιδήρου | 35 “ Ὡς μίρα δόξης |
| Διὰ πυρός τι | Κ’ ἀθανασίας, |
| Πολλῶν ταγμάτων ! | Εἰς μνήμην πάντα |
| Φέρι εἰς νίκην, | Ἀνδρῶν γυναιῶν ! |

‘Α. Ν.

the composition and charms of diction, but led them to look more deeply into the characters, manners, principles of politics, and usages of society unfolded in these immortal works of antiquity. They taught them to trace out there the deeds of their ancestors, and to perceive the causes of the ancient prosperity and subsequent decline of Greece. Among the most conspicuous professors who taught in this manner, were Lambros Photiades, Philippides, Constandas, Benjamin, Psalidas of Jannina, Proïus, Stephen Duncas, and above all Coray. Lambros was a native of Jannina, and for some time held the chair of Belles Lettres in the Lyceum of Bucharest. One of his principal pupils was Neophytos Doukas of Epirus. He has translated Thucydides into modern Greek with notes, and has also given an edition of the Athenian Orators, and of the Histories of Arrian and Herodotus. There are Dialogues on moral and literary subjects from his pen. It is told to his praise, that he distributed gratuitously copies of his works to different schools in Greece and to necessitous students.

Philippides was a native of a small village at the foot of Mount Pelion. Deeply versed in ancient Greek, which he had studied in the colleges of Greece, he went to France, where he became master of the exact sciences. Constandas, the friend and fellow-townsmen of Philippides, studied in Italy. They both returned together to their native country, where they taught the knowledge they had acquired, and where one of them translated the Logic of Condillac, and the other the Institutes of Logic, Metaphysics, and Ethics of Soave. Constandas translated Millot's General History. Philippides returned to France, and passed thence into Germany. He has translated and published in modern Greek, De Brisson's Physics, Fourcroy's Chemistry, and Lalande's Astronomy. His most recent work is a learned History of Wallachia, Moldavia, and Bessarabia. Another name of great merit is Benjamin of Lesbos. He founded the college of Cydonia, where he taught fifteen years, drawing around him a large number of young men, many of whom have held and still hold important stations in the provisional government of

Greece. Driven from this favourite retreat by jealousy and intrigue, he repaired to Constantinople, whence he was called to a chair in the college of Bucharest. But when the hospodar was compelled to escape from his political troubles by taking refuge in Europe, the professor was deprived of his friend and patron, and thrown again upon the world. Benjamin, who understood the proceedings of the *Hetærea*,* and knew that the great scene of the insurrection was not far distant, desired to act a part, and share in the perils of his fellow-citizens. At the beginning of this bloody contest, he found himself in the theatre of events. Simple as a pastor of the primitive church, unmoved by the prospect of the greatest dangers, he went through the Isles of Hydra, Spezzia,

* The Greek word *ἑταιρεία* signifies a society, of which Rizo speaks as follows. 'Riga was its first founder. It was a secret association, the basis of which was religion, and the object of which was the freedom of Greece. One of the principal articles of the *Hetærea* was its isolation from all the other secret societies in Europe. The members were obliged to take an oath, that they would not have the least connexion whatever with any foreign society. The *Hetærea*, founded by Riga, received afterwards many modifications. It had gradations to which men of merit alone could attain; the common people were initiated only in the first degree. Love of religion and country was recommended, as also implacable hatred of the Turks, and a desire to throw off their yoke. The greater part of the enlightened men of the nation were members of the *Hetærea*. It became important and more regularly combined in 1814, when the allied sovereigns had beat down the colossal power of France. Since that time the *Hetærea* has gone on daily increasing by the secret encouragement it has received from the Bible societies, from the society for the abolition of the slave trade, and from the philanthropic principles diffused throughout Europe, preached by wise men, and even by cabinets.' *Cours de Littérature*, &c. p. 179.

'It was Benjamin, who first discovered, or at least first developed the hypothesis of an ethereal substance, which penetrates all bodies, fills all voids, and moves perpetually in every manner and all directions; which is the unique cause of the principal phenomena of nature, as of light, fire, electricity, magnetism, galvanism, sensations, vegetation, and the rotation of bodies in the planetary system. This ethereal substance he calls by a name, which he has made for the purpose, *πανταχθίνου*, or *se mouvant partout*.' P. 178.

and Ipsara, and traversed in every direction the Peloponnesus and eastern Greece, preaching courage and contempt of death in the name of religion and of patriotism. His exhortations breathed the eloquence of the heart; multitudes were carried away by his example; he was of that rare number, who speak little, and leave to their character and their conduct the task of convincing and persuading. Borne up by his own energy under the heaviest fatigues and severest privations, doing all for his country and nothing for himself, he was like the lamp which is consumed in emitting its light. At length his noble career was terminated by the terrible epidemic, which in 1824 made such ravages at Nauplia. Psalidas of Jannina, a disciple of the celebrated Kant, occupied for a long time the chair of philosophy in the college of Jannina, and by his address contrived to hold his place in safety under the wily and ferocious Ali Pasha. After Ali's death Psalidas took refuge in Corfu, where he still lives.*

The island of Scio has produced its full share of men of letters. Among these were Vardalachos, the author of a work, in modern Greek, on experimental Physics, and of another on Rhetoric, at one time professor at Bucharest, afterwards in his native city, and lastly at Odessa; Dorotheus Proïus, who held a chair in the college of Couroutzesme on the Bosphorus for three years, was then successively made archbishop of Philadelphia in Asia Minor and of Adrianople, and finally became a victim to the rage of the barbarians in the first days of the insurrection; Plato, who succeeded him in the college, was afterwards bishop of Scio, and was also massacred. Stephen Dunkas of Thessaly followed Plato in the college of Couroutzesme. He had studied in the Universities of Halle and Göttingen. He wrote a complete course of Mathematics, a treatise on Physics, and one on Ethics. Dunkas possessed a considerable fortune, part of which he expended in purchasing philosophical, chemical, and astronomical instruments, which he caused to

* Psalidas died since the above was written.

be transported to Ambelakia, a town at the foot of Mount Pelion, where, in union with the poet Christopoulos,* Constandas, and the brothers Capetanaky,† he had conceived the project of founding a University. These instruments were dispersed by the Turks, when they destroyed the larger part of the towns and villages in Thessaly.

Time would fail us, were we to attempt to name all the men of letters, who contributed to form the second period of which we have spoken. We shall pass on, therefore, to the third and last period, during which men of distinguished talents, in forming and fixing the language according to the principles of sound logic and the methods of modern instruction, have contributed at the same time to accelerate the regeneration of Greece. This period is also the most interesting as well on account of the number of works that have appeared in modern Greek, as of the schools established under the special auspices of the *Fanariotes*, or Greek princes, whose influence with the Turkish government enabled them to hide from the eyes of the tyrant in some degree the rapid progress made in the acquisition of new ideas, and in the true interests of the Greek nation. The great political questions which agitated Europe, operated powerfully towards the emancipation of Greece. The protection afforded by Russia in the letters patent, which she profusely granted, and which the Sultan was obliged to recognise, gave to the Greeks extraordinary facilities of commerce during the war with Spain. The intrepid mariners of Hydra, Spezzia, and Ipsara went to the ports of the Black Sea to load their ships with grain; which they transported and sold at a very high price in the blockaded ports of Spain. With their Russian protections, as soon as they left the Hellespont, they hoisted the Russian flag, which was then neutral. By the aid of this circumstance and many others, commerce was ex-

* Christopoulos, at present one of the members of the Wallachian Divan, published a complete edition of his lyric poems and his other poetical works, in 2 vols. Paris, 1833.

† The brothers Capetanaky are at present occupied, at Vienna, with an interesting work on Grecian antiquities.

tended, national wealth was increased, and relations were formed with foreign nations. The Greeks soon possessed a mercantile marine, which was able at length to contend with advantage against the naval forces of the Sultan; and in a word it may be said, that commerce ought to be accounted among the principal causes of the restoration of Greece, since commercial enterprise awakens industry, forms a marine, promotes the arts and sciences, and augments the productions and wealth of a country.

The different commercial houses, established by Greeks in almost all the mercantile cities of Europe, have been of great service in aiding the literary progress of the nation, as well by the facilities thus offered for the communication between the Greeks frequenting the universities of Europe and their countrymen at home, as by their contributions to every kind of enterprise, which had for its object the intellectual advancement of the nation. The prospectus of a Greek work was hardly announced, when a sufficient number of subscribers was obtained to carry through an impression. To some it may be surprising to learn, that during the first twenty years of the present century *more than three thousand new works* were printed in modern Greek, a large part of which consists of translations made by the most distinguished literary men speaking that tongue. Four journals circulated in Greece, of which the *Telegraph*, *Τηλέγραφος*, a political journal, and the *Mercury*, *ὁ Λόγιος Ἑμῆς*, a literary journal, both printed at Vienna, were conducted by men of eminent abilities and learning. At Odessa, Bucharest, Jassy, and Corfu, theatres were established, where tragedies written in the modern idiom were represented. In short, the national progress has been rapid, beyond what could have been imagined. Happy they who have contributed to this result, whether by their labours, their intelligence, or their ardour in the cause to which they have devoted themselves. Among these is *Coray*, and indeed so much better is he known in the literary world than the others, that the period in question may properly be called after his name.

Coray, born in Smyrna of a family originally from Scio, after finishing his Greek education at his native place, went to Montpellier in France, where he studied medicine. He commenced his literary career by publishing a French translation of Theophrastus and Hippocrates; but he was not known in Greece till he published in Modern Greek Beccaria's treatise on *Crimes and Punishments*, accompanied with notes and prolegomena, and dedicated to the republic of the Seven Isles, then under the protection of France. Travellers and superficial observers, with as much injustice as severity, had defamed Greece by painting her in false colours, and blackening her pretended faults, which existed only in appearances induced by her temporary political condition. Coray, in a memoir written in French, and entitled *De l'Etat actuel de la Civilization de la Grèce*, made known the reviving spirit of the nation, which was represented to be plunged in the most profound lethargy. This work, translated and circulated in Greece, acquainted his countrymen with their growing strength.

Coray undertook the publication of his *Grecian Library* by a selection of authors as judicious as it was analogous to his honourable views in regard to his country; and he was powerfully seconded in bringing out the work by the brothers Zosimas,* Greek merchants in Moscow, enjoying an immense fortune, which they consecrated to the noblest of purposes, the regeneration of their country. Copies of this noble work, printed at the expense of these brothers, were distributed by their order gratis throughout all the schools of Greece, to such students as had not the means of purchasing it. The notes and prolegomena, joined to the editions of all the works published by Coray, breathe the spirit of a philosopher, a scholar, and a patriotic citizen. His counsels were not without fruit. At his instigation was commenced a Dictionary of ancient Greek, with definitions in modern Greek, and ex-

* The last of these patriots died a few years ago, and bequeathed his splendid library to the Greek nation.

amples taken from classic authors.* In the preliminary discourses prefixed to some of his editions of the classics, Coray treats of many important subjects, such as the improvement of which modern Greek is susceptible, the best method of constructing grammars and of teaching youth, the manner of reading with the greatest prospect of benefit, the light derived from experimental and positive philosophy, and the duties which every Greek owes to his country. The views of Coray on these subjects, expressed with an eloquent simplicity, supported by solid arguments, and sustained by the European reputation of their author, produced a remarkable effect on all the reading population of Greece. Many Greeks from the different colleges were drawn to Europe, and especially to France, by the fame of Coray, and have since become conspicuous in their own country. We may mention

* The physician Vlastos laboured for many years in the composition of a Dictionary. Charles Ghika also undertook to translate the great Dictionary of Henry Stephens, and to add a large number of words, which were wanting in this *chef-d'œuvre* of the erudition of the sixteenth century. Mourouzy, profiting by the labours of these two philologists, formed a society of learned men, procured for them all the Greek Dictionaries then published, and furnished the expenses of the great undertaking. In this work are explained, in modern Greek, all the words of the ancient language; the age of each word is marked, and a comparison is made of the senses in which each term has been used during the different periods of Greek literature. The impression of this Dictionary (entitled *Κλέρις, Ark of the Greek Language*) was commenced in 1817 at the Patriarchal press of Constantinople. One volume only has appeared, coming down to the letter Δ, in large folio, and a beautiful character. The Lexicon which, with justice, enjoys the highest reputation among the Greeks at present, is that of the Archimandrite Anthimos Gazis, who, instigated by a desire to aid his countrymen in the acquisition of their ancient language, undertook his laborious work, of which Schneider's Dictionary formed the basis, in 1804, and brought it to a conclusion in 1816. It was printed at Venice, in 3 vols. 4to. 1809-1812-1816; and we are informed, that, in compliance with a national wish, a new edition with great improvements is now in progress at Vienna. There is also a Greek Dictionary by Constantine Michael Coumas: Vienna, 1825. It is chiefly founded on that of Reimer.

Coumas, Vamvas, Economos, Piccolos, Asopius. A long and honourable list might be added.

Until the time of Coray no one had dreamed of any regular system of purifying and refining the modern Greek language. Every writer had followed his particular fancy, without regard to fixed principles, and in accordance with the greater or less degree of knowledge he had of ancient Greek. At the beginning of the present century the most enlightened Greeks perceived the necessity of studying their language more philosophically, and much attention was directed to this subject. Opinions soon became divided, and nearly at the same time three systems sprang up, which were attacked and defended by the different parties with much warmth.

The first system had for its basis a vague idea of enriching the modern idiom, by introducing into it the words and grammatical forms, which had been gradually altered, or totally lost, during the long decline of the Greek language. Upon this principle the style would be a medley of ancient terms and trivial or corrupted expressions of modern origin. Some writers of name adopted this method, at the head of whom was Neophytos Doukas. After him came Meletios, Theotoky,* and Eugene. Their doctrine was attacked in due form by Coray, both with the weapons of solid reasoning and of ridicule. He called this species of writing the *macaronic* style.

The characteristic of the second system was to write modern Greek just as it is spoken, without the slightest change either in the acceptance of the words, their variations, or their forms. Its founder was the lawyer Catardzy. Possessing a highly enlightened understanding, he wished to render popular the means of instruction by placing them within the reach of the whole Greek nation; and with a view of aiding his purpose he composed

* Contemporary with Eugene was Nicephoros Theotoky of Corfu, a learned man, who devoted himself more to mathematics than to intellectual philosophy. After studying in the Universities of Italy, he taught in his own country and at Jassy. Having passed into Russia, he was first appointed archbishop of Cherson, and afterwards of Astrachan. He died at Moscow in 1800.

two treatises and a grammar. Philippiades was an upholder of this system, and in conformity with it he wrote his translations of Condillac and Lalande. But the person, who contributed the greatest share towards bringing it into vogue, was the lyric poet Athanasius Christopoulos. He adopted all the ideas of Catardzy. Not content with defending the use of the vulgar Greek, he attempted to show that this idiom was one of the numerous dialects of the ancient language, and composed an *Æolico-Dorian Grammar*, in which, by an ingenious selection of examples, he strove to prove, that the apparent alterations of modern Greek were only forms derived from the ancient Doric and Ionic dialects. Amiable, and endowed with a fine imagination, Christopoulos, by the charm of his verse, drew the whole world after him. The lighter kind of poetry, which loves simplicity and natural expressions, and which rejects artificial and laboured diction, was well suited to his purpose. His Anacreontic odes, written in the most familiar style, were themes of admiration and delight throughout Greece. The ladies were staunch supporters of this system, not by learned dissertations, but by the pleasure they expressed in reading the fugitive pieces of the favourite poet of the nation. The following ode, taken at random, will give some idea of the style and manner of Christopoulos.

ὦ Ἔρως ἀνδρόγατος,
 Γλυκὴ καὶ ἱλαρότατος,
 Τοῦ κόσμου κυριότης·
 Ἐστὶ δ' ἐνός, τὸ σῶμά μου,
 Τὸ στήθος, καὶ τὸ στήμα μου,
 Λατρεύω καὶ πηρύττω.
 Ἐν θεοῖς α' αἰθρία,
 Οὐράνα κ' αἶρα,
 Κρανίῃς καὶ βασιλείῃς·
 Καὶ ὡς τὰ αἰῶνα
 Τῆς γῆς μας καταχθόνια
 Τὰ βίβη σου τοξοῦναι.
 Τὸ βλέμμα σου τὸ ἡμέρον,
 Ἄσδ' ἐν κόσμῳ σήμερον,
 Στεγμὴ σκιδὸν ἀν' αὐτῇ·
 Ἡ φύσις ὅλη σβύνεται,
 Καὶ παταγᾶ καὶ γίνεται
 Κατὰφθα καὶ θλίψη.

Oh Love, who, brightest, gayest,
 With bland dominion swayest
 The universe of things;—
 Mind, body, heart proclaim thee,
 My tongue delights to name thee,
 And thee adoring sings!
 To thee all power is given,
 And through earth, air, and heaven,
 Thy rule all spirits own;
 And e'en where glooms eternal
 Fold Night's old realms infernal,
 Thy conquering shafts have flown.
 That glance, beneath whose beaming
 Life's joyous tide is streaming,
 Let that but cease to burn,—
 See Nature's frame decaying—
 See all her bright arraying
 To sombre sadness turn!

Ἀρίμνητα τὰ πάλῃ σου,	Thy charms, above comparing,
Ἡ δύναμις μεγάλη σου,	Thy power, beyond declaring,
Μεγάλη σου ἡ δόξα·	Glory, all thought above ;—
Λατρεύω τὴν αἰώνιον	Thy darts, which time assails not,
Καὶ θαυμαστὴν σου πρόνοιαν,	Thy providence, which fails not,
Καὶ εἰ ἄφρατά σου τόξα.	I worship, mighty Love !

It is to be observed, that notwithstanding the success of this poet in his lighter effusions, and the high admiration they have excited, yet he has had few imitators. In his case, the vulgar idiom is ennobled by the genius and delicate taste of the writer, but it becomes insipid and coarse, when flowing from the pen of a less gifted genius. Christopoulos would have been a poet in any language, which he had cultivated enough to express his own warm feelings, and describe the simple beauties of nature.

Such was the state of uncertainty in the modern Greek language, which existed without any fixed rules, any character as a whole, or any universal principles. Violent disputes arose, much ink was spilled, and the war of the quill waxed fierce and alarming. Coray perceived the danger that threatened the language, in the midst of this confusion, and interposed the weight of his authority and zeal to avert the mischief. He sought a middle ground, and devised a plan, which should cause the language to be written correctly and intelligibly, at the same time that it should satisfy both the learned and the common people. He laid it down as a principle, that the modern tongue should be gradually purified and elevated, avoiding, however, such ancient forms, as no longer accord with its genius ; that foreign words should be discarded, and their place supplied as far as possible by judicious drafts on the treasure of ancient Greek ; and that foreign idioms should be banished, such as Gallicisms, Italicisms, and Germanisms, which had been introduced by the numerous translations. This system, of which Coray was the originator, soon gained attention. Hereupon a new contest arose, and the followers of Coray, in the height of their fanaticism and the fire of their zeal, came near overthrowing and destroying all that their master had built up before them. Greece was inundated

with the works of these pretended *Koçaioral*, *Corayists*, written in an unintelligible style, filled with fantastical and new-coined expressions found in no author ancient or modern. The contagion spread daily, till the writers themselves could hardly comprehend each other, or decipher their own writings. In this state of things (1812), Rizo wrote a comedy entitled, *Koçaxorinà*, *The New Jargon of the Learned*, in which his object was, not to attack the system of Coray, but to expose the extravagances of those who had disfigured it. This weapon of ridicule had some effect in arresting the progress of the epidemic. Time consolidated the system of Coray; in all its essential points it was approved by intelligent men; and from that period the language has been shown susceptible of much beauty in style, and of elegance and purity in conversation.

Coray spent his life in a foreign and distant land, but he saw the day approaching when the call to arms, sounding from the bosom of the Lyceums of Greece, would mingle with the echoes of the cry of vengeance and liberty. "In spite of his great age," says Rizo, "this venerable patriot wrote night and day for his country, urged the multiplication of new colleges, and directed the formation of them in a manner the best suited to extend their light and influence. The colleges of the first rank were then those of Cydonia,* Smyrna, Scio,†

* In Asia Minor, called by the Turks *Aivali*. Before the Greek Revolution it was celebrated for its college;—rich in olive plantations, and civilized by commerce. The population amounted to 30,000, and were all Christians. It is embellished by the proximity of many small islands called *Μοσχονήσια*, the *perfumed islands*, on account of the aromatic plants with which they abound. The town of Cydonia was the *apanage* of the powerful family of the Durri-Zades, which has furnished many distinguished Muftis. It was their protection which secured to this town an exemption from the vexatious proceedings of the Pashas.

† The Island of Scio, the supposed birth-place of Homer, has been alternately under the dominion of the Genoese, the Venetians, the Florentines, and the Turks, who took it from the Genoese in 1566. The Venetians, in 1691, deprived the Turks of possession, but were compelled to restore it to them in the following year. The Sciotes having made no resistance, obtained from the Turkish

Couroutzesme, Bucharest, Jassy, Jannina, and Athens. All these schools, judiciously organized, were under the direction of skilful professors; but the Lyceum of Scio surpassed them all; it had fourteen professors, of whom the best known were Vardalachos, Vamvas,* Celepy, Nicolas Piccolos, and Julius David, son of the painter of that name. Already public liberality, on the registers of which was always the name of the generous Varvaky, had endowed the university of Scio with a rich library and a printing press; already many works had seen the light; already were preparations making to establish literary journals; already were realized the hopes of the Sciotes and their fellow-countryman Coray, when suddenly the insurrection broke out. Scio disappeared and all was destroyed; the barbarians devastated the richest, most populous, most civilized, and most beautiful of the isles of the Archipelago." Besides the colleges in Greece, there are other establishments in foreign countries for the education of Greek youth. In Venice, Trieste,

government, privileges, which they have consolidated by their prudent conduct.

All the inhabitants of Scio were Christians of the Oriental church, excepting a small number of Roman Catholics. The Turks, who did not exceed 2000, inhabited exclusively the Castle. A *Mutésellam*, or Ottoman seneschal, exercised very small influence in the civil administration.

The government was municipal; the *Δημογέροντες*, *magistrates*, consisted of those whose age and past conduct furnished sufficient guarantees for the integrity of their manners, their love of country, and their experience in the management of affairs. They were selected each year by a plurality of votes, and chosen by the merchants. Scio, though naturally arid, became extremely productive under the spade of the indefatigable cultivator, who did not leave an inch of land uncultivated, and who even made the very rocks productive. Sixty-six villages, some supported by their agricultural industry, others by commerce and manufactures, formed a population of 80,000.

The capital was populous, and adorned with public edifices, temples, and private houses. Besides the buildings appropriated to the college and public library, there were hospitals for the sick, and other charitable institutions.

* Formerly Professor of Natural History and Chemistry, and now, we believe, in the University of Corfu.

Leghorn, Vienna, Odessa, Jassy, and Bucharest, are Greek schools more or less considerable. In Venice are a Greek church, printing establishment, and college; and Spyridion Blandis, one of the professors, is known by his Italian, French, and Modern Greek Dictionary. From very early times similar establishments have existed in Vienna under the control of able men, such as the brothers Capetanaky, Gobdella, Athanasius of Stagira, and several others, well known by their works, and accounted among the first men of letters in the nation. At Jassy a Lancastrian school was founded, and confided to the direction of Cleobulus of Philippopoli. Full of patriotic feelings he afterwards returned to Greece, where he applied himself to the task of extending this mode of instruction. He lately died much regretted at Syra.

It remains for us to say a few words of the Ionian University, first founded in 1807, when France for the second time was assured of the possession of the Seven Isles by the treaty of Tilsit. At that period several French officers of the engineer corps were professors of the physical sciences and mathematics, with whom were united Greek professors to make the system of instruction complete. The vicissitudes of war threw these islands, by the treaty of Paris, into the hands of the English, under whose protection they have since continued to flourish. The college made no progress under the first Lord High Commissioner, Maitland; but when his successor, Sir Frederic Adam, was appointed in 1823, Lord Guilford, always friendly to the Greeks, was nominated Chancellor of the University by the express interposition of Mr. Canning. From that moment to this it has prospered, and a large number of students has been drawn thither by the zeal of Lord Guilford, who took much care to find out and appoint able professors. This generous patron of the arts and sciences died lately, deeply lamented by all Greece. He bequeathed to the University his library, in which he was at great pains to collect whatever related to modern Greek literature; and on this topic it is the most complete collection of books in existence. The Ionian Isles

have produced some eminent literary men, as Foscolo and Mustoxidi, both of Corfu, but who have rather adorned Italian than Greek literature. Count Capo d' Istria, renowned for his diplomatic rank in Russia, and for his station as President of Greece, is a native of Corfu.

Notwithstanding the din of arms and the ravages of war, the Greeks did not cease to think of the interests of literature; and the college of Missolonghi, the journals printed and the works published, as well there as at Athens and other places, are testimonies to this fact; but all is to be commenced anew, since professors, colleges, libraries, every thing has disappeared and become a prey to the barbarians.

Having thus glanced at some of the chief points in M. Rizo's book, we shall close with a word respecting the author himself. He was born at Constantinople, in 1778, of a Fanariote family distinguished in the ranks of letters and diplomacy. An orphan at four years of age, his education devolved on his uncle Samuel, archbishop of Ephesus. At the age of twenty he entered the service of Alexander Ypsilanti, and married his grand-daughter. He filled divers stations, and was prime minister to Michael Soutzos,* prince of Moldavia, when the revolution broke out. On this occasion he sacrificed all his fortune in the cause of liberty, and after the defeats in the provinces, he retired with his numerous family to Kischneff in Bessarabia. In 1823 he took his two eldest sons to Geneva, where he left them to study military tactics, and went himself to Pisa, in which place he met some of his intimate friends. Thus separated from his family and his country, the Muses and his lyre became his only solace; but having suddenly lost his eldest son, and overcome with many other afflictions, he determined, at the solicitation of Capo d' Istria, to return and rejoin him at Geneva. It was then that he drew up his *Cours de Littérature Grecque Moderne*. Rizo has since accompanied Capo d' Istria into Greece, where he was appointed commissioner of the Isles of the Archipelago.†

* At present Greek Minister at the Court of St. Petersburg.

† He is still alive, and if we are not mistaken, he now occupies the station of Minister of Instruction under the Royal Government.

The reputation of Rizo in Greece is particularly high as a poet. His first attempt was the tragedy of *Aspasia*, an edition of which in the original modern Greek has lately been published in this country. In this edition many errors of the preceding, printed at Vienna and Leipsic, have been corrected. Next came his *Polyxene*, a tragedy in five acts, the plot of which is managed with great art. The comedy *Κορακιστικά*, or *Patois des Savans*, we have already noticed. The *Κούρκας 'Αρπαγή*, or *L' Enlèvement du Dindon*, is a humorous poem, of which three cantos only have appeared. Its object is a general satire upon the faults and follies of the Greek nation. Several other fugitive pieces have been printed at different times. His style is clear, elegant, and harmonious; a fair specimen of which we give in the following ode, *To Himself*, written during his residence at Pisa.

Ποῦ εἶν' ἱκνῶνς ὁ καιρὸς, ὅταν κ' ἐγὼ εὐδαίμων,
'Απ' αἰθέρας βοηθούμενος τῶν εὐμενῶν ἀνέμων,
'Ακύμαντον δίσπλα τὸ πλάγος τοῦ βίου,
Καὶ εἰς τοὺς κόλπους ἱμβαῖνα λιμένος γαληνίου !
Διμὴν ἦτοι ὁ οἶκός μου 'ς ἱκνῶν καδ' ἡμέραν,
Συμπαιζὼν μὲ τὰ τέκνα μου, περιπαίζω τὴν σφαῖραν·
Συμπάριδρον 'ς τὴν τρέπιζαν λαμβάνων τὴν ὑγίαν,
Τὴν ἀπαλὴν τῶν ἱστρίων κ' ἀδύαν ἡλιπίαν.

'Αλλ' ὦ πατεῖς ! ὦ ὄνομα παμφίλτατον καὶ θύον !
Φιῦ ! σὲ προφίρῳ σήμερον μιτὰ τιμῶν δακρύων !
'Ὡ γλυκυτάτη μου πατεῖς ! τὰ τέκνα σου καθίνα
'Ὅπότεν σὺ προσκάλισις, σὺ μ' ἱκραῖς κ' ἱμίνα.
Τί τέκνον σου εὐλακρινὲς, μ' Ἑλληνικὴν καεδίαν,
Πρὸς τὴν φωνὴν σου ἱμιλλεῖ νὰ μὲν εἰς ληθαργίαν :

Δίεβν γῆν τὴν εὐανδρον τῆς αἰῶν Γερμανίας,
Τὴν γῆν τὴν φίλην τῶν τεχνῶν καὶ τῆς φιλοσοφίας·
Διῆλθα τὴν καλλίλιμνον γυναιάν 'Ελβετίαν,
'Ελλήνων εὐεργέτριαν μὲ μεγαλοψυχίαν.
'Εθαύμασα κ' ἠγάπησα τὴν σφύρανα Γινίβην,
Καὶ, ὑχηθεὶς ὑπὲρ αὐτῆς, τὰς Ἀλπεῖς ὑπερίβην . . .
Κατίβην 'ς τὰ ἡλύσια Ἰταλικὰ πιδία,
Φιλομυιδῆς, φιλόξενος μ' ἰδίχθ' ἡ Τυρρηνία.
Τὰς θύσεις τὰς ποιητικὰς, τὰ ἄλση της, τοὺς κήπους,
'Ὅπου ἱμβαίνει ὁ χιμὼν μὲ σίβας καὶ βραδύπους,
Τὰ εἶδα· πλὴν, ἀλλοίμοινοι ! παυσίλυτα πρὸς ἄλλους,
'Σ ἱμίνα λύπας γίννησαν καὶ στυγαγμοὺς μεγάλους.

* * * * *

Ἔνιοι πλανώμενοι 'ς τὴν παραθαλασσίαν,
 Μὴν ἔχων ἄλλον σύντροφον παρὰ τὴν ἄδυμίαν,
 Ὅσῳται πλοῖα ἔβλισαν τὴν θάλασσαν νὰ σχίζουν,
 "Μακάριον" ἰφάνταζα, "ὅσῳτοι ἀρμενίζον !
 Πότε, πτενὰ θάλασσαν, νὰ φέρεται κ' ἰμίνα
 Μὴ τὰς λιμνὰς σὰς πτέρυγας 'ς τῆς "Τόρας τὸν λιμένα !"

Πρὸ ἡμῶν πληθὺς νεφῶν, ἀπὸ ἀτμῶν πληθύνει
 Ἐξογκυμῖνα, ἵδριχαν σχιδὸν ἱξήντα ἄρας . . .
 Μιστὰ τῆν παύσιν τῆς βροχῆς, ἰγὼ κ' ἴνας μου φίλος,
 Ἀργῶ περιπατούσαμεν 'ς τοῦ ποταμοῦ τὸ χεῖλος.
 Ἐκὶ παρατηρήσαμεν, μετὰ φρυγάνων ἄλλων,
 Κ' ἵνα παρασυρόμενοι πορμὸν δρυὸς μεγάλων.
 Στραφύς τότε 'ς τὸν φίλον μου, "Ἴδι," τὸν εἶπα, "κείνην
 Τὴν δρῦν, πῶς παραφέρεται 'ς τὴν ποταμίαν δίνην.
 Ἦτον κ' αὐτὴ πυκνόφυλλος, μὴ κλῶνις πολλοὺς πρῆπν,
 Μὴ τὴν σκιάν της δρόσιζι τὴν ὑποκάτω χλόην,
 'Σ τοὺς κλάδους της λιγυφθογγα πτενὰ κελαδοῦσαν,
 'Σ τὴν ῥίζαν της τὰς σύρριγγας τοιμίνες ἰφυσοῦσαν"
 Ἀλλὰ τὴν ἐξῆρξεν τῆς καταγίδος βία,
 'Σ τὸν ἄρον τὴν ἐκρήμισε, καὶ σύρειθ' ἡ ἄδλεια.

Μὴ τοῦτον φίλε, τὸν πορμὸν κ' ἰγὼ παρωμοιώθην,
 Ἀφ' οὗ ἀπὸ τὸν οἶκόν μου χωρίσθην κ' ἱμονώθην."

Oh! where 's the time—the joyous time—when, in my spirit's glee,
 I urged my bark across the breast of life's untroubled sea,
 And, hurried onward by the breath of free, propitious gales,
 Within the tranquil haven's bosom furled at last my sails?
 My home that peaceful haven was—and therein, day by day,
 I sported with my children, and I shared each childish play;
 I nursed their tender, unstained youth, and, at my humble board,
 I drank in health, and cared not what the world might else afford.

But oh my country! name most dear and sacred to my ears!
 Alas, I now pronounce thy name with bitter, bitter tears!
 Oh country sweetest to my heart! I hear thy thrilling plea
 Appeal, as to thy other children, so alike to me;
 And what true-minded child of thine, that bears a Grecian heart,
 Will not from torpid slumber, at thy cry of anguish, start?

I traversed Upper Germany, that land of glorious men,
 Where Art her cherished altar hath, Philosophy her fane;—
 Helvetia's generous soil I trod, the beautiful of lakes,
 The high-souled benefactress of the persecuted Greeks;—
 I paused, with fond, admiring love, on wise Geneva's sod,
 And, with her farewell blessing, then the Alpine summits trod;—
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Descending thence, to Italy's Elysian plains I sped,
 And hospitable Tuscany in gladness round me spread ;
 Her scenes so steeped in poetry, her gardens, and her groves,
 Where Winter comes but tardily, and timorously moves ;—
 All these I saw—but oh ! what brought to others sweet relief,
 In me moved only stifling sighs, and wakened deepest grief.

Sometimes, with wandering steps, I tracked the sea's resounding
 shore,

With no companion, save the grief I ever with me bore,
 And when I saw the gallant ships, that proudly stemmed the sea,
 " Oh ! happy ye, who sail therein," cried I, " thrice happy ye !
 When, birds of Ocean, will ye bear me, with your snowy wings,
 Where open wide her arms of welcome Hydra's haven flings !"

The multitude of clouds, that first the heavens with beauty spread,
 By gathering vapours swelled, a long and drenching torrent shed ;
 And when the clouds had rolled away, and the tempest's rage was
 o'er,

I, with a single friend, slow paced along fair Arno's shore ;
 And there we saw, 'mid many shrubs, an undistinguished throng,
 An oak upturn, of hugest trunk, on the current drift along.
 Then turning to my friend, I said, " Behold that lordly stem
 Now shivered, tost by whirling waves, the plaything of the stream !
 Once girt by numerous verdant boughs, with leafy honours crowned,
 In its broad shade the springing grass refreshing coolness found ;
 The liquid-throated birds among its spreading branches sang,
 And, at its root, the shepherd's pipe, in tuneful murmurs, rang ;
 But the tempest, in its wasting wrath, the noble tree hath torn,
 And to the wild waves given it, of all its glories shorn.

And now, my friend, in this wave-tost and tempest-shattered tree,
 Since I became a homeless exile, view a type of me !"

In the preface to the work before us, there is a hint
 that Rizo is engaged in preparing a history of the Greek
 Revolution. We are anxious to see the appearance of
 this work,* as few men are better informed on this
 interesting subject, or better qualified to do it justice.

* It has since been published.

APPENDIX.

SOME ACCOUNT OF EUGENE BULGARIS.

THE late revolution in Greece has opened a new field of contemplation to the inhabitants of Europe. Hitherto an object of mere melancholy interest, she is now likely to engage the attention both of the political and learned world. While her existence as an independent state will give her new importance in the eyes of the former, the latter will expect, with the recovery of her freedom, the restoration of her ancient pre-eminence in letters, and watch, with increasing anxiety, the dawn of a new day of literary glory. Every information with regard to her will acquire value; her history during the period even of her captivity, will become the subject of much interesting inquiry; and when it is found how unavailing the chilling hand of despotism has proved to restrain the vigour of her mind, and to silence her poets and her philosophers, the hopes entertained of her will seem less unfounded and visionary. Among the many distinguished men she has to boast of in modern times, none is, perhaps, better entitled to her gratitude, or to the admiration and esteem of mankind, than Eugene Bulgaris, the author of the Reformation of Philosophy in the Schools of Greece.

This man, known in Greece by the title of the celebrated (*σεφειμης*), was born at Corfu in 1716. After acquiring at home a complete knowledge of his mother-tongue, he went to Padua, where he applied himself to the study of philosophy, with all the changes which it had till then undergone. After a residence of some years at this University, he returned to Greece, his mind glowing with the patriotic desire of imparting to his countrymen something of the vast knowledge he had himself acquired, and there joined the illustrious and wealthy family of Maroutzi, then residing at Venice, by whose generous assistance he succeeded in forming a school at Jannina, where he sowed the first seeds in Greece of modern philosophy. His reputation quickly spread, and his country

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echoed with the praises bestowed on his learning, on the ease and elegance of his compositions in ancient Greek, his poetical talent, his piety, and his zeal for the interests of science and of his native land. There were some, however, whom envy prompted to tarnish, if they could, the lustre of his splendid abilities, by maliciously misrepresenting the patriotic and virtuous designs of this great and good man. How often have the highest aims of genius been thus counteracted!

This, and other reasons which it is needless to mention, induced Bulgaris to leave Jannina, and to teach successively at Kozani in Macedonia, at the celebrated school of Mount Athos, and the Patriarchal college of Constantinople. His stay in Greece, as a teacher, did not exceed ten years; but his powerful and impressive lessons had given a noble impulse to the minds of the Grecian youth, a new range to the course of instruction, and struck out a path for the investigation of truth till then unknown. What Bacon first did in England, what Descartes did in France, and Leibnitz in Germany, Eugene Bulgaris may, with truth, be said to have done in Greece. Each of these great men is celebrated for the abolition in his country of the scholastic philosophy; this is also what Bulgaris accomplished in Greece, introducing in its stead the methods which the modern school had proposed and followed, with the improvements of those, who, from their time till his, had assisted in the restoration of true science.

From this period is to be dated the cessation of the philosophical despotism of Aristotle, to whose writings, disfigured as they were by the commentators, the mind of youth had been for ages kept in the most servile subjection. Following the example of our philosopher, most of the instructors of youth turned from the old systems of Corydæus and others to explain the opinions of the moderns. The Logic of Bulgaris, especially after the publication of the author's edition at Leipsic in 1766, became the common text-book of our schools, and was taught throughout Greece with distinguished success, particularly at Turnavo in Macedonia, by the Reverend Professor John Economos. The immense acquirements of the author have enabled him to display a peculiar tact in this book, where he has introduced examples drawn from different sciences, calculated to excite in the youthful mind a thirst for general information. Thus, many sciences formerly unknown in Greece, have been introduced under the pretext of illustrating obscure passages in the Logic of Bulgaris. Many Greeks still living, and well known in the literary world, are indebted for their reputation to this celebrated work, the study of which first called forth the latent energies of their mind; and it is sufficient here to mention the opinion expressed by Coray, in his work, "On the present state of Civilization in Greece," published in 1803:—"Eugene Bulgaris was one of the first whose efforts effectually contributed to that moral revolution now in operation amongst us; and it is with particular satisfaction that I pay my share of the tribute of gratitude due to him by the

nation, as I shall never forget the emulation excited in my young mind by the publication of his Logic, to which I owe the little knowledge I possess."

The advantageous offers made to Bulgaris by the Empress Catharine induced him to settle in Russia, but not until he had left to his countrymen, besides his Logic, his works on Physics and Metaphysics, written in ancient Greek, with a number of pupils to teach in their schools. During his residence in Russia, where he was nominated Archbishop of Cherson, he published several theological works, and, by express order of the Empress, translated the *Æneid* of Virgil into elegant Homeric verse. He died at St. Petersburg in 1806, deservedly regretted by his country and his friends. After his death, the jealousy excited in the minds of some, by his talents and reputation, was speedily extinguished, and the well-earned tribute is unanimously rendered to his memory at the present day, and will be so for ever.

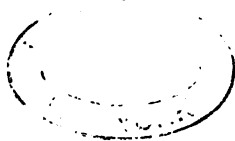
It is interesting to observe, in perusing the biography of this great man, that by his introduction into Greece of those improvements in philosophy to which Britain has so essentially contributed, the latter has been enabled, in some degree, to repay in kind the advantages derived by her from the precious monuments and examples of classic lore, handed down to her and to the modern world by the ancient sages of the former.

A
CONCISE VIEW
OF THE
UNIVERSITIES,
AND OF THE
STATE OF THEOLOGICAL EDUCATION,
IN
GERMANY.

BY EDWARD ROBINSON,
PROFESSOR EXTRAORDINARY IN THE THEOLOGICAL SEMINARY
AT ANDOVER.

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A
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OF
GERMAN UNIVERSITIES.

INTRODUCTION.

THE history of Germany, for several centuries, is an object of intense interest to the theologian, as well as to the politician. That assemblage of nations comprised under the general name of Germany, has long been, what it still is, a people of comparatively little practical energy, but of vast intellectual exertion. Broken up into a multitude of larger or of petty states, without a capital to serve as a centre of laws or of religious effort, and living under governments essentially despotic, their moral and mental energies have had no outlet in the ordinary channels of civil life and practical utility, which exist under free governments; and have therefore been able to display themselves only in the walks of literature and theoretical science. But in all that regards intellectual labour and intellectual excitement, and in all that serves as a sustenance to these, the Germans fall at least behind no other people; in many things they have been far in advance of all other nations. The art of printing, with all its mighty results, owes its birth to Germany. Here too was engendered that spark, which kindled and spread with the rapidity of lightning over northern Europe, and produced at length the clear and steady light of the Reformation.

It is singular to remark, however, that in all the fierce discussions of the time relative to religious liberty, which formed the very basis of the Reformation, and in the violent rejection of the papal authority in matters of faith and religious practice, there was no direct or at least no efficient application of the same principles to civil rights. The governments continued as despotic as

before ; and the question of any possible political reform does not seem to have been seriously agitated. But in England, the more practical tendency of the people produced, in time, the natural results of a struggle for liberty of any kind. The same principles and reasonings that led men to burst the shackles which ecclesiastical tyranny had imposed on them for ages, led them also to call in question the validity of that civil tyranny, by which they were deprived of their natural rights. It is thus that the Reformation in Germany, operating also upon England, and there extended to the kindred question of political liberty, may be regarded as the great ultimate cause, which led to the settlement of this western world.* It is the great principle of liberty of thought, suggested to the mind of the Monk of Wittemberg, and by him spread out before the world,—and in England coupled with the great kindred principle of liberty of action,—that has lain at the foundation of all the mighty movements of succeeding centuries. If it were right to refer to a single individual that which was but the expression of the spirit of an age, we might thus ascribe to Luther not only the Reformation in Germany and England, but also regard his exertions as the germ, from which have sprung all the great political events that have since astonished and convulsed the world ; the revolutions of England and of France ; and with happier results, the foundation of a new empire in a new hemisphere ; with the revolution by which this last threw off the pressure of a foreign yoke, and founded, on a basis unknown in history, institutions of freedom which will bear the test of experience, so long as virtue and intelligence shall be the characteristics of the people ; but which, it requires not the power of prophetic vision to foresee, will be surely swept away, whenever ignorance and irreligion shall become predominant in the land.

The light of the Reformation has not yet departed from Germany ; although its glory has been obscured in these latter days, by urging to an extreme the fundamental principles on which it proceeded. The Reformers, with all their zeal for liberty of thinking and freedom of

* America.

investigation, never had a thought of subjecting the form and matter of revelation to the decisions of human reason. With them the Bible was THE ONLY AND SUFFICIENT RULE OF FAITH AND PRACTICE. Their reason acknowledged its authority as paramount to all other, and yielded with reverent submission to the guidance of its holy precepts. In modern times, men whose hearts have been opposed to the truths of revelation, have carried their freedom of investigation to the extreme of calling in question and denying, not only the fact of an actual revelation, but also the possibility of one at any time and in any circumstances. The reason of man has been proclaimed the source and the interpreter of all religion; the Scriptures declared to be the production of merely human wisdom; and all systems of faith and practice deduced from their pages, denounced as the imposition of a crafty priesthood upon the ignorant and credulous. All this however is nothing more than had already taken place, and with still greater virulence, in other nations; especially in England and France. The difference is, that in the latter countries these enemies of revelation were not enrolled under the banners of the church; they attacked her as open adversaries; while in Germany the poison has spread through the body of the church itself; and those who have solemnly bound themselves to make the Bible their only rule of faith and practice, have been among the first to discard its authority and contest its doctrines. The rationalism of Germany is the deism of England. The latter was professed by a few; the former has spread among the many; and its advocates, by pressing their consistency to its ultimate results, have already produced a reaction, which promises, by the blessing of God, in time to bring back the German churches to the faith and practice of the Gospel, as exhibited in the principles of the Reformation.

To an American who goes to reside for a time in Germany, the object of the greatest interest is not to study human nature in a different hemisphere, for that is everywhere much the same. It is not to observe manners and customs unlike those of his own land, for the novelty of these soon wears away, and they cease to make an im-

pression on his mind. But it is rather to trace the developments of national character and feeling, as acting upon, or as affected by, their forms of religious faith and practice ; it is especially the fact, that he is treading on historical ground. We as a nation have no antiquity, and no history, except of recent date ; and our very spirit of change and improvement prevents us from preserving that which is old, merely for the sake of its antiquity. But in Germany all is different. There a love of antiquity predominates in external things, although discarded in regard to intellectual matters ; and centuries seem there to be less remote from one another, than we have here been accustomed to conceive them. The period of the Reformation seems hardly separated from the present time. The names of Luther and Melancthon are as familiar in the mouths of the people, as with us those of Washington and Franklin ; and the great Reformer is regarded with the same sort of filial veneration, as is our great champion of civil liberty. You pass through the small city of Eisleben, and visit his father's house. An inscription above the door announces that this was the birth-place of Luther. A school for poor children is now kept in the house, the master of which shews you around, and explains to you the relics they have collected in the room where the Reformer was born. At Wittemberg you visit his cell in the old convent, now the location of a theological seminary ; you see there the table, the huge stove, the seat in the window, just as when occupied by Luther in the beginning of his career ; and it requires no great stretch of imagination to behold him and Melancthon, engaged in discussions which they little expected were to agitate the world. You enter the ancient church by the door on which Luther posted up his celebrated theses ; within, the two friends lie entombed over against each other in front of the pulpit, and their portraits hang upon the walls. You go to the spot where Luther publicly burned the pope's bull, and thus cut off all hope of reconciliation ; you walk the streets of the city ; and all now remains as it was then. The persons and the generation are gone ; but their place, and their houses, and their streets, and all the objects by which

they were surrounded, are still before you, and are now presented to your eyes, just as once they met their view. In such circumstances it is almost with a painful feeling, that you wake as it were from a dream, and call to mind, that all this refers back to a hundred years before the earliest settlement of your native land. The ruined castles and massy churches which one everywhere sees, are monuments of still earlier ages; and are associated with the history and the legends of a thousand years. The past and the present here take hold of each other; and the ages that lie between them seem annihilated. This feeling, it is true, is carried to a still higher degree of solemnity and sublimity at Rome; where the monuments of ancient grandeur seem like the relics of another world.

The Germans, in their love of antiquity, are also eminently lovers of history. They require for every opinion and every doctrine, not only the proofs of reason and Scripture, but also the historical proof. They thus make history what it really is, the record of the experience of past ages; and they are slow to give credit to that which has not been tested by this experience. In this way the history of the Church has become to them one of the prime elements of the study of theology; and without this, one would no more be accounted an accomplished theologian, than he would be without a knowledge of the original languages of the Bible. One part of this history, viz. *Dogmengeschichte*, the history of doctrinal theology, or of the rise and development of the doctrines which are and have been current within the pale of the church, is almost peculiar to Germany. It cannot be denied that this is a department of very great importance; or that a doctrine or system of doctrines will ordinarily be better understood, if we know the occasion of their rise, the circumstances and character of those by whom they were first advanced, the discussions and contests they have undergone, the various modifications they may have received, —in short, all the historical facts and events connected with them, through the influence of which they have assumed the shape in which they are now presented to us. This subject has usually been treated of in Germany as

a branch of ecclesiastical history in general; though several works of merit have appeared, devoted to the separate and more detailed consideration of it.*

As a suitable transition to the more immediate object of the present outline, it may be observed, that the universities of Germany are also intimately connected with the history and antiquities of the country. Of those which still exist, the following were founded *before* the Reformation, viz. Prague in 1348, Vienna 1365, Heidelberg 1386, Leipzig 1409, Rostock 1419, Griefswalde 1456, Freiburg 1457, Tübingen 1477, Wittenberg 1502.† This last, which in the first twenty years of its existence became to its immortal honour the cradle of the Reformation, was in 1815 transferred to Halle and united with the younger university of that place. This was done by the Prussian government on very sufficient grounds, after

* The best history of doctrinal theology is found in NEANDER, *Allgemeine Geschichte der christl. Religion u. Kirche*, Hamb. 1826 ff.—The best separate works are, MÜNSCHER, *Handbuch der christl. Dogmengeschichte*, 4 vols. 8vo. Marburg, 1804–18. A short outline of this work for the use of lectures (Marb. 1812) has been translated by Dr. Murdock, New Haven, 1830.—AUGUSTI, *Lehrbuch, der christl. Dogmengesch.* Leipz. 1820, 3d ed.—BERTHOLDT, *Handbuch der Dogmengesch.* 2 vols. Erlangen, 1822.

† [The following universities, founded *before* the Reformation, have been omitted by the author: Cologne, 1388; Erfurt, 1392, annihilated in 1816; Triers, 1472; Ingolstadt, 1472, since 1802 transferred to Landshut; Mentz, 1477, annihilated in 1798; Frankfurt, 1506, united with Breslau since 1810; Marburg, 1527.] Ed.

† [Universities founded *since* the Reformation:—Dillengen, 1549; Jena, 1558; Helmstaedt, 1576, annihilated in 1809; Altdorf, 1578, annihilated in 1807; Würzburg, 1582; Giessen, 1607; Rinteln, 1621, annihilated 1809; Strasburg, 1621; Salzburg, 1623, annihilated in 1810; Bamberg, 1648, annihilated in 1804; Kiel, 1665; Inspruck, 1672, annihilated in 1810, and re-established in 1814; Halle, 1694; Breslau, 1702; Goettingen, 1734; Erlangen, 1743; Berlin, 1810; Bonn, 1818; Munich, 1825. The organization of the German universities was adopted by Alexander in establishing (1803) a new military university at Dorpat, for the benefit of the four provinces of Finland, Livonia, Esthland, and Courland. Also, Warsaw, the university of Poland, was organized in a similar manner (1816). The same spirit prevails in Copenhagen. Leyden (1575), and other institutions of Holland, formed themselves in imitation of Paris, which example was followed by Utrecht (1634), and other universities of the Netherlands.] Ed.

the union of that part of Saxony with Prussia ; but it was done greatly against the wishes and the will of the people at large, to whom that spot had become consecrated in history. To quiet the people of Wittemberg, a theological seminary was established there in place of the university, in which young men who have finished their university course may still pursue their studies. There is here free provision for twenty-two pupils ; and the number of those who support themselves is not limited. Two of the old Professors of the university, Schleusner and Nitzsch, were left here to sleep out the remainder of their lives ; while the general superintendence and instruction is intrusted to Heubner, a learned and pious man. The seminary however is little frequented.—In all the universities above-mentioned, the rights and privileges, the organization, the modes of teaching, indeed the whole external character of the institutions, have come down from a period anterior to the Reformation, except so far as they were necessarily modified by the changes which then took place. Throughout protestant Germany, the system of university education is in its leading features one and the same. It is the result of the experience of several centuries, and is now so interwoven with the character and principles, with the affections and prejudices of the people, that a change would be in a measure impossible.

In preparing an article on the state of theological education in Germany, it was the first intention of the author to incorporate in it a cursory notice of the universities of that country, so far only as they have a direct influence on this branch of education. As however these institutions constitute in themselves a subject of great importance, and also of great interest to the literary men and students of our own country, and have moreover so much connection with and bearing upon theological learning and literature, it has been thought best to treat of them under a distinct head ; and thus divide the article into two parts, one of which may serve as a species of introduction to the other. Our attention will be chiefly confined to the universities of protestant Germany.

PART I.

It is natural and it has been customary for us, to compare the universities of foreign countries with the seminaries which bear that name and with the colleges of our own land; and to derive our notions of the former in a great measure from our acquaintance with the latter. In regard to the universities of Germany, however, such a course must lead to false conclusions; since there is scarcely a point of resemblance between those institutions and the universities or colleges of the United States. A German university is essentially a *professional* school, or rather an assemblage of such schools, comprising the four faculties of theology, law, medicine, and philosophy; the latter of which corresponds to what is elsewhere called the faculty of letters and science, and embraces every thing not strictly comprehended in some one of the other three. Those students who attend lectures in the first three faculties, do it merely as a course of professional study, and with direct reference to the professional occupations of their future lives. Those who attend in the philosophical faculty, are mostly such as are preparing themselves to become professors in the universities, or teachers in the classical or other schools; or they are qualifying themselves for the general pursuits of literature and science; or they are such as are chiefly attending to professional studies in one of the first three faculties, but wish at the same time to make themselves acquainted with other branches of learning. Hence the different faculties correspond precisely to our professional seminaries and schools; so that could we consent to bring together into one place one of our theological seminaries, a law school, and a medical school; unite the libraries and the advantages of all; and add a faculty of letters and science; the result would be a university entirely on the German plan. Whether such a course would be advisable or practicable in the present state of our country, is a question often asked in this time of excitement on the subject of education; but to answer it properly is a mat-

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ter of no little difficulty. In the course of these remarks, we hope to lay before the reader some facts and suggestions which may enable him, in some degree, to form his own judgment on this question. At present, the only advances towards such a plan in our country are exhibited at Cambridge and New Haven; where however not more than two of the faculties, in the proper sense of that word, have gone into complete operation.

The universities of Germany were all founded by the governments of the countries in which they are respectively situated; but up to the time of the Reformation all such foundations, with their rights and privileges, had to receive the confirmation of the popes. That of Wittenberg in 1502 was the first that was confirmed by the emperor of Germany, and not by the pope; although the assent of the latter was afterwards applied for. That of Marburg in 1525 was at first confirmed by neither pope nor emperor; but received afterwards the sanction of the latter. After the Reformation, all new universities were confirmed by the emperors in the rights and privileges granted to them by their own sovereigns. The last which received this sanction, was that of Göttingen in 1734. Erlangen, founded in 1743, appears not to have received it. From that time till the dissolution of the German empire in 1806, no new university was established. Those which have been since founded, as Berlin, Bonn, and Munich, exist of course only by the will of their own sovereigns; than which there is at present no higher authority.

At the present day, all the universities are immediately and entirely dependent on the respective governments within whose bounds they fall. All the professors and instructors of every kind are appointed, and generally speaking their salaries paid, directly by the government; which supports also or directs the whole expense of the university, of the erection and repair of buildings,* of the

* It has been often said that German universities have no buildings. This is true in one sense, and not in another. All have a building for a library and for scientific collections; some have one with lecture rooms; others have hospitals; and all have a riding

increase of the library and scientific collections, &c. The author has not sufficient information to enable him to state with precision, what sums are annually appropriated to the support of the several universities, nor even of the larger ones. He only knows that the Prussian government pays annually, on account of each of the universities of Halle and Bonn, the sum of 80,000 rix dollars, which is equal to about £11,900. The government of Würtemberg appropriates annually to the university of Tübingen the sum of 80,000 florins, or about £7140. This is exclusive of the expense of a particular institution in the university (to be described hereafter), for the support of protestant and catholic theological students; the annual cost of which is from 90,000 to 100,000 florins, or from about £8030 to £8925.—The universities do not exist as independent associations under charters granted by the governments; but stand immediately under their control; are regulated by them; and may at any moment be abolished by a decree of the same power which called them into existence.

The professors are of two kinds, ordinary and extraordinary. They are all appointed alike, but differ in rank. The ordinary professors, strictly speaking, constitute the faculty; they are members of the academical senate, and thus have a voice in the government of the university; they have a dean of the faculty, who is always chosen by and from themselves. When appointed, the ordinary professors may enter immediately on their duties without inauguration; but in order to enjoy all the rights and immunities of their office, and especially to be eligible as dean of the faculty, they must first hold a public disputation in Latin *pro loco obtinendo*. The professors extraordinary are simply teachers, and have no farther duties nor privileges. Besides these there is another class of private instructors, *privatim docentes*, composed of young men who have taken the degree of Doctor of Philosophy, (equivalent to our Master of Arts,) and have

school. But it is universally true that there are no buildings for the accommodation of students, who everywhere live in hired rooms, and mostly in private houses.

then permission to read lectures and give private instructions in the universities.—The regular salaries of the ordinary professors vary according to circumstances from 500 to 2000 rix dollars (about £75 to £300), and rarely exceed the latter sum. The professors extraordinary seldom receive more than 500 rix dollars; often not more than 100; and the instances are not rare, where a man is at first glad to receive merely the title, without any salary whatever. The private teachers also have no salary. All the professors and instructors receive fees from the students for their private courses of lectures; which however, except in extraordinary cases, do not amount to any considerable sum.

This class of private teachers is the nursery in which all future professors are trained; where they are seen just budding into life; and whence, if they flourish with a vigorous and healthy growth, they are soon transplanted to a maturer soil. If a young man distinguishes himself in this situation, he is very soon promoted to be a professor extraordinary. The governments have here an opportunity to judge of the qualifications of candidates for literary stations, and of selecting and securing the services of the best men; and to a young man of real promise, they are usually not slow in holding out a reward. A young man of talent and promise came to Halle in 1827 as a private instructor in the department of history; in 1828 he was made professor extraordinary; and in 1829 advanced to the rank of ordinary professor; and such instances are not uncommon. The extraordinary professorship again is regarded as a stepping-stone to the ordinary one. It gives a young man a certain rank and standing in the university; he no longer reads lectures merely on sufferance; he has at least a permanent place; has enjoyed the notice of government; and is sure, if he continues to distinguish himself, of being further promoted. This however does not always take place of course. It is not unfrequent that a young man starts well in the beginning, who afterwards sits down satisfied with his present attainments, and makes no further progress. In such a case, his promotion is at an end, so far as the merits of the individual are concerned; for here, as elsewhere, importunity and favouritism

often produce results, at which the public, who judge the question on its merits, are astonished. At Halle were two extraordinary professors of theology of about seventy years of age, who had held that station during the greater part of their lives; in 1829 one of them was made *ordinarius*; while the other remains as before. Private teachers are also sometimes found of the age of forty or fifty years; but they are usually such as have not had interest enough with the government to rise in spite of mediocrity.—In some instances literary men, with the permission of the government, give courses of lectures at the universities, and receive fees, without being attached to the institution in any other way, than as *privatim docentes*. Thus the historian Niebuhr, in his character of member of the Berlin Academy of Sciences, read lectures at Bonn; and at Halle a former major-general was lecturing on military history and tactics.

From this arrangement of the instructors into different classes, and the practice of admitting young men of the requisite qualifications to teach at pleasure in the universities, arises two important benefits, which are as yet unknown in the institutions of our own country. The first is, that a number of persons are thus always in training, either as private teachers or as professors extraordinary, in the different departments of literature and science, out of whom the higher professorships, when they become vacant, may be at once supplied. When therefore an ordinary professor dies, or removes to another sphere, the question is not, as with us, where a successor may be found; but the difficulty lies in selecting the best out of the many candidates, who are already well qualified for the office. In this country we are compelled to choose not the man who is already qualified, but him who, under all the circumstances, will probably be best able to qualify himself for the office, after he shall have been appointed. The consequence is, that a man of eminence in some public calling is for that reason often chosen to a professorship, with the duties of which he is wholly unacquainted. He must therefore first spend some years in obtaining himself that knowledge, which as a professor he is required to teach to others. In this respect the evil is

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entirely remedied in Germany ; but neither there nor anywhere is it possible to supply at once, and in all respects, the places of the more distinguished teachers. Many a man in the course of a long and active life acquires a stock of information and of influence, the loss of which can never be supplied. A younger man may indeed have all the learning and talent that is requisite to render him as good a lecturer and instructor ; but he cannot as yet have the experience nor the reputation of his predecessor ; and very probably may never be able to reach an equal standing. None of the successors of Newton have ever enjoyed the same reputation ; although, as teachers, they may perhaps have been superior to him. As a Hebrew scholar the place of Gesenius could not well be supplied ;* while as instructors, there are many whose teaching might be equally valuable.

The other benefit of this arrangement is, that it holds out the strongest incitements to diligence on the part of the instructors. To a young man just entering upon his career, it is obviously important to bring his whole strength to the work, in order to acquire a reputation which may authorize the expectation of promotion. He has the direct motive of profit, and the not much less direct one of hope, to stimulate his exertions. He knows besides that there are others before him in the race, actuated by the same motives, and also by the fear of being outstripped. The extraordinary professor stands in a similar predicament ; he has the same motives to exertion ; the same goal before him ; and has, moreover, ardent competitors behind him. The ordinary professor has indeed reached the summit of his ambition ; but he knows that if he relaxes his efforts, the fruits of all his labour will be carried off by others, and he thus lose in a measure his influence and emoluments. This system has now been long in operation ; and the general effect of it has been highly beneficial. It is not to be denied, however, that

* [No individual has had greater influence in the revival of Hebrew learning than Gesenius of Halle ; he has obtained by his various works a kind of imperial authority in every thing relating to Hebrew, which may be compared with that once exercised by Goethe on the belles lettres of Germany.] Ed.

the spirit of rivalry which in this way is so liable to be awakened, has often led to deplorable results in respect to the harmony and mutual good feeling among the instructors of a university ; and that the desire of distinction, which the system doubtless tends to foster, has sometimes taken a wrong direction, and sought its object in novelty and strangeness, rather than in the power of tracing and developing the character and relations of truths already known, and thus extending the boundaries of science in a sure and legitimate method. But these are the incidental results of the system, and not the system itself, nor its proposed consequences. They are the friction of the machine, and if you please inevitable to it ; they tend to weaken its power, but do not destroy its value. In the most powerful of all machines, the steam engine, there is a constant tendency to occasion the most disastrous results ; and such accidents are in our day by no means uncommon ; yet no one ever had a thought of abandoning, on this account, the use of this important invention. It is even so in regard to moral power. It is impossible to adopt any system, which shall operate upon the minds of men and urge them on to persevering effort, in which there will not be room and opportunity, and even inducement, for the passions and prejudices of worldly men to display themselves.—In passing it may be remarked, that in the various theological faculties with which the writer has been acquainted, there has been no interruption of harmony and friendly intercourse, in consequence of any thing arising out of the system of things above referred to. On the contrary, it is not at all unfrequent in this and in the other faculties, for the elder professors to patronize younger men in the same department, and even to exert their own influence with the government, in order to bring about their more speedy promotion.

The lectures delivered by the instructors are of three kinds, and are given *publice, privatim, et privatissime*. The first, or public lectures, are given only by professors ; and constitute nominally that course of instruction, for which they receive salaries from government. Originally this was actually the case, and all regular instruction

at the universities was free ; as it still is in the *College de France* and other public schools of Paris. In process of time, however, it was found more profitable to give private courses, for which a small fee was charged ; and it has now come to the point, that no professor reads more than one public course, and that usually consisting of only one lecture in each week. The object is, to give as little free instruction as will comport with the tenor of their appointments. The second class, or private lectures, are those which have thus been introduced. They are precisely similar in their nature to the public ones, and delivered in the same place, and often to the same hearers. The only difference is, that for these each student pays a small fee ; and the professor consequently endeavours to make these courses more interesting and instructive. The courses continue nominally six months ; the year being divided into two terms or semesters, with a vacation of five or six weeks in the spring and autumn. Most of the professors give two courses of private lectures in each term, and sometimes three. In some of the courses lectures are delivered six times a week ; in others four ; and sometimes, though rarely, only twice. The fees paid by the students are small ; for a course of theological lectures never more than one *Frederic d'or*, or about four dollars. In some instances a professor of law receives double fees ; and even much more than this is paid for some courses of medical lectures. In the larger universities, as Berlin and Göttingen, where things are done more genteelly, these payments must always be made in gold. In Halle they may be made in any species of money ; and the price of a course is graduated according to the number of lectures in a week. The private teachers receive the same fees as the professors ; and for the sake of popularity usually give also a course of public lectures, although this is not a necessary part of their duties.—The instruction which is given *privatissime*, consists simply in private lessons.

The number of hearers whom a lecturer can draw together, depends upon the nature of his subject and his reputation. It depends also upon the general number of

the students who frequent that particular university ; although this again is in some degree dependent upon the celebrity of the professor, or rather the professors. If these have a high reputation, the university will generally not want for students. Sometimes also an individual professor makes an important improvement in some branch of science or literature, and creates a new era in regard to it. In such cases a new impulse is given to that particular study ; students are attracted to his university ; and his lecture room is crowded. Gesenius may be quoted as an instance of this in respect to Hebrew literature. In the winter of 1829–30 the writer attended his course on Genesis, which he reads every two years. At the opening of the course he took occasion to remark, that he was then about to read it for the tenth time ; and adverted to the very great progress made in this branch of study, and the very great interest taken in it now, compared with twenty years ago. At that time he commenced the same course with fourteen hearers ; he was now addressing five hundred. He added, that he had then felt quite satisfied even with that comparatively small number ; inasmuch as a previous course on the same book, by Professor Vater, had been attended by only three. The great influx of theological students to Halle had thus been occasioned by the influence of his name. In like manner the reputation of a particular faculty often draws to a university a larger number of students in that department. Thus the faculty of law at Göttingen has enjoyed a high reputation, and has attracted young men from every part of Germany. At present all the faculties in the university of Berlin are filled with some of the most distinguished men of Germany ; and the consequence is a larger concourse of students, than has ever been known at any other protestant institution.—The lecture room of Gesenius is probably better filled than any other in Germany. Neander in Berlin had usually from three to four hundred in his exegetical course on the New Testament ; in his other courses fewer. The younger Eichhorn, the jurist, in Göttingen, had about three hundred ; and was considered the most popular lecturer on law in

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the country. He has since retired. His father, the orientalist, had ordinarily from ninety to a hundred hearers. Wegscheider and Thilo of Halle have each about three hundred. These are some of the more popular lecturers; with others the number varies according to circumstances, and is not unfrequently less than ten.*

As a general fact, the professors deliver their lectures at their own houses. The recent universities of Berlin and Bonn occupy former palaces, and have ample room for all necessary lecture rooms, as well as for the public collections. In Halle also the university has one large lecture room, which is occupied by the theological professors in succession. But in Göttingen and at most of the other universities, each professor has to provide his own *auditorium*, and the accommodations for sitting and writing are commonly of the rudest kind. It is not unusual for the students to have to hurry from one lecture to another, at the distance perhaps of half a mile. To accommodate them in this respect, the professor does not commence until five or ten minutes, as the case may be, after the hour has struck. In Berlin, although this reason does not exist, the lectures uniformly do not commence until a quarter after the hour, and are broken off punctually at the striking of the clock. They thus actually occupy only three quarters of an hour; although a full hour is the legitimate and usual time.

The students, before entering the university, are required to have passed through a regular course of preparatory study at the *gymnasia* or public classical schools. At these schools boys are taken at the age of from eight to twelve; and are trained in a thorough course of classical study. They are taught, not only to read the Greek and Latin with fluency, but also to write them. They are moreover accustomed to speak the latter language with ease, and in the latter part of their course to hold all their exercises in it. This is one of the great secrets of the advantage of classical study as the foundation of a

* In the *College de France* and the *Ecole des langues orientales* at Paris, De Sacy and the other professors of languages rarely, if ever, have more than from ten to fifteen pupils.

liberal education ; and this circumstance goes far to account for the fact, why the early study of these languages is so much more highly prized in Europe, than with us. Here they are but partially studied ; they are learned solely by the eye, and not by the ear. The American student is taught merely to connect the *idea* with the word which he sees before him, and not to connect the *word* with the idea. For example, if a boy be asked what is the Greek word for *water*, it is at least an even chance that he will not be able to answer the question ; but if at another time you place before his eyes the word ὕδωρ, he immediately recals the idea of *water*, because this idea has been already associated in his mind with this word. He could not answer in the first case, because the word was not in the same manner associated with the idea. Now this double power is necessary, in order to the thorough or even tolerable acquisition of any language. The one part of it we learn from reading ; the other part alone enables us to write and speak another tongue with fluency and ease. It is obvious that in regard to the discipline of the youthful mind, the latter part of the process is far more important than the former. But in our own country, this part is, comparatively speaking, entirely neglected ; and the student is taught only to recal the meaning of words as he sees them on paper. In the public schools of the old world, both parts of the process are carried on together, and in the most thorough manner ; and the result is a deep and solid foundation, on which to raise the future superstructure of education.

The consequence of all this is, that the German students on leaving the gymnasia for the universities are, as to philology and classical literature, far in advance of American students at the end of their college course. But in acquaintance with mathematics, the belles lettres, and in general practical information, the former are inferior to the latter. But they have acquired a method and habit of study, and a discipline of the mind, which enable them to enter upon the university course with well directed ardour and a sure prospect of success. Here they can spread out their inquiries to any extent ; and

Besides their regular professional studies, may and often do attend courses of lectures on classical or modern literature, history, the natural sciences, &c. As a general fact, however, both with regard to students and literary men, there is a much greater division of labour among them than with us. Every one endeavours to make himself master of his own particular department ; but has in other departments and on other subjects less general knowledge than is common with us. One grand result of the whole process of education is, that what they learn, they learn thoroughly, and have always at command. In matters of learning they are *ready* men, as well as profound scholars.

The students on entering the university from the gymnasium, pass from a state of discipline and close supervision to a state of entire freedom. Having once chosen their profession, they may attend what lectures they please, and as few as they please ; they may live where they please, and do what they please. The university exercises no authority over them whatever, so long as they are not guilty of open misconduct. These are circumstances which may serve to account for that wild spirit of insubordination and visionary liberty, which has been represented as so prevalent among the students of Germany. Prevalent it undoubtedly has been and is still ; but probably in a much less degree than has generally been supposed. The riots, and duels, and *renowning*, all the noise and folly and crime. are confined to a few in comparison with the great body of the students, who are engaged in a course of silent, persevering study. The noise and bustle of these few have struck foreigners as a peculiar feature of the German students, and have therefore been fully and frequently described ; while the more noiseless course of the many has escaped their observation. The circumstances above mentioned have operated more conspicuously in the smaller university cities, such as Jena, Göttingen, &c. where the students, feeling their importance in respect to the inhabitants, have assumed a greater license, and have been at the same time unrestrained by the force of public opinion. The modern plan of locat-

ing universities in large cities, has been eminently successful in abolishing this spirit. The students in Berlin, for instance, are lost in the crowd of population ; and could not as a body indulge in any of the freaks which are common at other universities, without being borne down by the ridicule of the surrounding multitudes.

The students, as has been already said, attend what courses of lectures they please. There are however certain professional courses which they must have attended, in order to be afterwards admitted to an examination. In theology, for instance, a man must have heard lectures in all the four departments of exegesis, *Dogmatik* or doctrinal theology, ecclesiastical history, and *Homiletik* or practical theology. These are significantly called *Brod-collegia* ; because a man's future bread depends on his having heard them. In Berlin there is also a regulation, that the students in theology shall attend the courses in a certain order ; inasmuch as it was found, that they often attended the practical lectures, before they were acquainted with either exegetical or systematic theology. Very often too the students in general attend the lectures of a particular professor from fashion, rather than from any choice. Not unfrequently there are lecturers in the philosophical department, who draw crowded audiences out of all the other faculties. This is the case with Ritter of Berlin, the celebrated geographer, a man of piety and genuine simplicity of character, as well as of profound learning in his department. The lectures of Böckh on Greek antiquities are also attended by all classes of hearers. In like manner it is fashionable to attend the courses of Blumenbach at Göttingen. The fashion however often varies from year to year, and in regard to the different courses of the same professors.

As a general rule, all the students not only take notes of the lectures, but mostly write them out in full. The professor often spends a part of the time in regular dictation, which is written down by all ; while between the paragraphs he gives extempore illustrations, which are also seized and written down by many. It is exceedingly rare to see a student in the lecture room without his

writing materials in busy use. These are very simple; consisting of a small portfolio or *Mappe* in which he carries his pens and paper, and a small turned inkstand of horn, with a cover that screws on, and a small sharp spike on the bottom by which it is stuck fast upon the bench or writing-table before him. They are exceedingly punctual; and the few minutes previous to the entrance of the professor, are usually devoted to mending their pens and putting their papers in order. This is accompanied by a general whistling and buzz of conversation. The moment the professor enters all is hushed; he begins immediately to read, and they to write; sometimes without interruption till the striking of the clock. In this way they hurry from one lecture to another, and it is not uncommon for them to attend five or six every day. There are not wanting instances where a student has in this manner been present at *ten* different courses; but this is quite rare. They very generally review at home the lectures thus written down; and read or consult the books referred to by the professor. This is sometimes done in companies of five or six, who by their mutual remarks serve to imprint the subjects more deeply on the minds of each other. They thus obtain, generally speaking, a clear view and receive a deep impression of so much information, as the professor has chosen to give them. There are others, although their number is comparatively small, who merely make the lectures what they are in fact, a clue for the guidance of their studies, and go into extensive and profound investigation for themselves. These are the men who love knowledge for its own sake, as well as because it is power; and while the multitude are ready to take up with the reports of others, they wish to trace for themselves the stream of knowledge to its source, and drink of its pure waters at the crystal fountain.

It is a question often agitated in Germany itself, whether this habit of writing in the lecture-room is on the whole beneficial; and whether it would not be better, if the attention of the pupil were left free and undivided to follow the train of the professor's thoughts. Undoubt-

edly in this latter way the pupil would be better able to seize and trace the relations of the thoughts thrown out by the lecturer, to analyze and compare them ; and would thus be more immediately led to independent habits of thinking. On the other hand it is urged, that it is absolutely necessary to collect and treasure up for the whole life much of the knowledge imparted by the instructor ; that the process of writing leads to a closer and more accurate attention, and to greater interest in the lectures themselves ; and that if the notes be properly reviewed, a far deeper and more precise impression is received. It is however recommended in all systems of *methodology*, that the instructor should enable the pupils to combine the advantages of both these methods, by devoting a part of each lecture to regular dictation, in which he may lay down his propositions and give the general illustration of them ; while the remaining part should be composed of free and often extemporaneous discussion and illustration. This is in fact the plan followed by the most distinguished and popular lecturers ; and their hearers make a point of writing all that is dictated, and listen to the rest ; though some, by means of a species of stenography, are able to seize the whole. So far as this, if the writer may judge by his own experience, the system of writing down after the professor is eminently beneficial.

The regular time necessary to be spent at the German universities in professional studies, is for medical students four years ; for all others three years. As a general rule young men are required to be principally educated at the universities of their own state ; but are allowed to spend one year of their course at any foreign university. Thus natives of Prussia who study theology, must remain at least two years at some Prussian university ; in the other year they may go wherever they please. Those states which have no university of their own, usually adopt a neighbouring one. Thus Göttingen, which belongs to Hanover, is at the same time adopted by Brunswick and Nassau as their university ; and the young theologians of these states are obliged to

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spend at least two years on the classic, though somewhat naked banks of the Leine.

After these remarks on the general character of the German universities, it may not be uninteresting to the reader to give an alphabetical list of them, accompanied by notices of their general history; of the more distinguished professors, especially in the theological faculties; of the number, and general division of the students, so far as known; of their libraries, &c.

I. BERLIN. This university, although it went into operation only in 1810, has already taken the first rank among the literary institutions of Germany. Situated in the midst of a large and splendid capital, amid a population of 220,000 souls, and supported by the whole influence of a powerful court and government, it has of course had comparatively few obstacles to struggle with. It is located in an immense building, formerly the palace of Prince Henry, the brother of the great Frederic, in the midst of the most fashionable and splendid part of the city. The building is sufficiently large to accommodate the collections in anatomy, natural history, &c. besides furnishing lecture-rooms for the use of all the professors in their turn. This edifice gives a strong impression of convenience and utility; and it was a thought of thrilling interest, when sitting among three or four hundred pupils, who were drinking in the instructions and the pure spirit of the gospel from the lips of Neander, to compare its present destination with its former character, when the voice of mirth and revelry resounded through its halls, "and the harp and the viol, the tabret and pipe, and wine were in their feasts; but they regarded not the work of the Lord."

It has ever been a favourite endeavour of the King of Prussia, to collect in his university at Berlin the ablest men of the whole country. In this he has not been unsuccessful. The faculties of law and of medicine at present decidedly take rank of all others in Germany; while the philosophical one is in no degree inferior to any other. The theological faculty is abler and more fully attended than any other, except at Halle. This arises

in general not from the greater ability of the professors at Halle ; except so far as Hebrew literature is concerned, where Gesenius incontrovertibly takes the first rank ; but from two other causes, viz. first, that a very great proportion of the theological students are poor, and Halle is in itself a cheaper place than Berlin, besides having a multitude of stipends and free tables ; and secondly, that Halle is the favourite resort of almost all the followers of rationalism, who at the present day constitute a very large class among the theological students. Berlin, both as a city and a university, has a decided preponderance to evangelical religion, and may be regarded as one of the strongholds of faith and true piety in Germany.

The theological department contains the names of Strauss, the most popular and eloquent of the court preachers, who lectures on *Homiletik* or practical theology ; Marheinecke, who teaches *Dogmatik* or systematic theology, and who is a disciple of Hegel and verges towards pantheism ; Schleiermacher, a man of great simplicity of manners and one of the deepest thinkers of the day, who wanders at will over the whole field of theology. He has a system of his own, and has many followers. He seems to stand between the rationalists and the evangelical party, being however more distant from the former than from the latter. It was related to the writer by Harms of Kiel, that he himself and several of his acquaintances, had been brought off from rationalism by the logic of Schleiermacher ; but not being able to rest in the position which he had taken, they had gone forward to embrace the evangelical doctrines. Neander is the first ecclesiastical historian of the age, and one of the best, if not quite the best, exegetical lecturer on the New Testament in Germany. His great work on the history of the church is advancing, but with slow progress. Hengstenberg is still quite a young man, and early distinguished himself as an Arabic scholar at Bonn, where he was the editor of the *Moallakat* of Amrulkeis. At present he is engaged in a work entitled “ Christology of the Old Testament,” which treats of the predictions respecting the Messiah under the ancient dispensation,

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The first volume was published in 1829. He is also the editor of the *Evangelische Kirchenzeitung*, a work which has done good, although it is generally regarded as too intolerant in its spirit. De Wette was formerly a member of this faculty, but was cut off in 1819 by the king, on the ground of his having written a letter of condolence to the mother of Sands, the murderer of Kotzebue. The general opinion however is, that this only served as a pretext for his dismissal; and so little weight did there seem to be in the charge, under the existing circumstances, that the whole university as a body petitioned, but in vain, for a recal of the decree.—As a jurist, the name of von Savigny stands pre-eminent in Germany; in the medical faculty are the names of von Graefe, Hufeland, Busch, and others. In the various departments of the philosophical faculty are Hegel, the present prince of metaphysical philosophers in the north of Germany; Encke, the astronomer, who reads lectures as a member of the Academy of Sciences; von Raumer, the historian; Charles Ritter, the celebrated geographer, a pious and most amiable man; Bekker, the indefatigable editor of Greek and Roman classics; Böckh, the Greek philologist and editor of Pindar; Zumpt, the Latin grammarian; Bopp, the Sanscrit scholar; and a host of others. The whole number of the instructors is usually more than a hundred.

The number of students at Berlin, in the winter of 1829–30, was somewhat over 1800. In the winter of 1826–27, the number was 1732; in the summer following it was 1594. These last were divided as follows: in theology 479; in law 577; in medicine 333; and in the philosophical faculty 206. The relative numbers at present probably do not vary much from the same proportion. The cost to a student of living here may be estimated at 300 rix dollars (about £44) a year; varying of course according to the habits of economy or expense of each individual. The students of Berlin, as has been above remarked, do not form a distinct and separate body as in the smaller cities, but are lost in the crowd; and the consequence is, that there is about them little or

nothing of that peculiar character, which German students are usually represented as possessing. Generally speaking too, they may be regarded as a higher class of young men, than those who frequent most of the other universities, with the exception of Göttingen. Their dress and appearance is certainly more respectable.

The university, as such, has no separate library; but has the full use of the royal library, which occupies a splendid building of its own across the street from the university. It contains 180,000 volumes, and 7,000 manuscripts, and ranks in Germany next after the libraries of Munich, Göttingen, Vienna, and Dresden. It is open for consultation every week day, two hours in winter, and three hours in summer. Books may be taken out twice a week. All the students have the privilege of taking out books under the *cavet* of a professor.—There is also an extensive botanical garden, formerly under the care of the celebrated Willdenow.

In all the six universities of Prussia, viz. Berlin, Bonn, Breslau, Greifswalde, Halle, and Königsberg, the government have established what are called a *theological* and a *philological seminary*, or societies among the students, under the guidance of a professor, for the more extensive study of these branches. There are usually from ten to fifteen ordinary members, who are admitted on examination, after having been a year at the university, and are bound to attend the meetings and take part in the exercises: these enjoy some slight privileges and stipends, and are in the way of favourable notice from the government. In Berlin, during the last winter, there were exercises of this kind in the exegesis of the Old Testament under Hengstenberg, and in the history of the church and of doctrines under Neander and Marheinecke. The philological seminary is under the care of Böckh. Similar institutions exist also in most of the universities of other states.*

* The story related in Russell's *Tour in Germany*, (Chap. X.) about the agency and influence of Wolf in the foundation of the Berlin university, is generally pronounced in Germany to be false.

II. BONN. The university at this place, though founded only in 1818, is fast rising to a high rank among its elder sisters. It is called the Rhine university, and is located in the midst of the most delightful scenery, just where the splendid banks of the Rhine change their character of precipitous crags and vine-clad hills, and sink down into a rich and cultivated plain. The rugged cliff of Drachenfels with its ruined castle, so celebrated by Byron, is in full view, and nearer at hand the still more picturesque ruin of Godesberg. This university is also established in a palace, viz. that of the former electors of Cologne, who resided in Bonn. In extent and convenience, it is not inferior to that of the Berlin university.

In the Rhine provinces of Prussia, a considerable proportion of the population is catholic; and on this account the university of Bonn (as also of Breslau) has both a protestant and catholic faculty of theology. In the protestant part, the most important names are Augusti, the author of numerous works; Nitzsch; Sack; Gieseler, a spirited investigator in ecclesiastical history, and the author of the best manual on this subject; Bleek, formerly at Berlin, a learned and candid man, author of an introduction to the epistle to the Hebrews, and the reviewer of Professor Stuart's commentary on that book in the *Literatur-Zeitung* of Halle, for Jan. 1830. A part at least, if not the greater part of this faculty, are decidedly evangelical; and in this region of country, particularly at Elberfeld and Barmen, there is a very general prevalence of pure religious faith and practice. In the catholic faculty are Gratz, formerly at Tübingen, a prolific writer, and Scholz, the editor of a new recension of the Greek Testament, for which object he has travelled over Europe, Western Asia, and Egypt. In the philosophical faculty, we find the well known names of A. W. von Schlegel, Niebuhr, Welcker, and Freytag the orientalist, now engaged in the publication of an Arabic lexicon. This is

It was told by Wolf to Russell, either for the purpose of imposing on his credulity, or, more probably, in the dreams of his own extravagant vanity.

not a second edition of Golius, as was at first intended, but a new and much fuller work.

The number of students in 1822 was 571 ; in the winter of 1829-30 it was over 1000 ; having thus nearly doubled in seven years. The proportion in which these are at present divided among the several faculties, is not now known to the writer ; but in 1826 about one-third were theological students, of whom the catholics were the most numerous ; one-third law students ; and the remainder about equally divided between the medical and philosophical faculties.

The library contains already 66,000 volumes and 200 valuable manuscripts. There is a fine botanical garden, and also good collections in all the departments.—The theological and philological seminaries also flourish.

III. BRESLAU. This university, located in the capital of Prussian Silesia, was originally founded by the Jesuits in 1702, for the education of catholic theologians. In 1810, the university of Frankfort on the Oder was transferred to Breslau, and incorporated with the former one. Since that time it has greatly flourished. There is both a catholic and protestant theological faculty ; in the latter of which are von Cölln ; David Schulz, the new editor of Griesbach, and a commentator on the epistle to the Hebrews ; Bernstein the orientalist ; and Middeldorpf. In the philosophical faculty are Wachler, the historian ; Passow, the Greek lexicographer ; and Habicht, the editor of the ‘ Thousand and one Nights’ in Arabic.

The number of students has been for several years on the increase. In 1826 it was less than 900 ; in 1829 it was over 1200. The most of these are in the faculties of theology and law. The seminaries of theology and philology are flourishing, under the guidance of Schulz, von Cölln, Middeldorpf, and Passow. The library is an important one ; but the number of volumes is not specified.

IV. ERLANGEN is the protestant university of Bavaria. It was founded in 1743, by the Margrave of Baireuth, to whom Erlangen then belonged ; and passed with his dominions under the sceptre of Prussia, and then under that of Bavaria. In 1807 the university of Altdorf was bro-
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ken up, and incorporated with Erlangen. The university has a fine building, erected within a few years out of its own funds, which amount to more than 60,000 rix dollars (or about £8925) a year, administered under the direction of the government. It stands on the site of a palace of the former Margraves, which had been assigned to the university, but was wholly burnt down in 1814.

The principal members of the theological faculty are Vogel, Kaiser, Winer the author of the *New Testament grammar*, Engelhardt, and the younger Ammon. In the philosophical is Rückert, a fine oriental scholar and poet. The number of students is rather on the decline; in 1825 the whole number was 500; in 1828–9 it was only 431; of whom 272 were theologians, 64 students of law, 41 of medicine, and 54 in other studies. The library contains 100,000 volumes; and the other collections are very respectable.

V. FREIBURG in the *Breisgau*, as it is called, is the catholic university of Baden. The city contains about 10,000 inhabitants, and is beautifully situated on the east side of the great valley or plain of the Rhine, at the foot of the hills of the Black Forest, where the valley of the Treisam issues from their dark precincts. The university was founded in 1457; and has a large and important library, rich especially in old books collected from the many disbanded monasteries. The only professor of general celebrity is Hug, the author of the *Introduction to the New Testament*. It has been said that he is engaged in a similar work on the *Old Testament*; he reads at least a course of lectures on that subject. The number of students in 1825–6 was 600.

VI. GIESSEN is the university of Hesse Darmstadt, and is situated on the great road from Frankfort on the Maine to Cassel. It was founded in 1607; and has a yearly income of 60,000 florins, or about £5350, principally from funds of its own and those of the former university of Mayence. The professors of theology most known are Kuinoel, the author of the *Commentary on the Gospels*; Schmidt, author of an esteemed ecclesiastical history; and Pfannkuche. The number of students

at present is not specified ; but it has not usually exceeded 500. The library contains nearly 30,000 volumes.

VII. GÖTTINGEN was founded by George II. of England in 1734 ; and is indebted for the liberal plan on which it was established, and for the extraordinary aid which it received from the government, to the celebrated minister von Münchhausen. The services of the ablest men were secured ; and the names of the illustrious Haller, Mosheim, J. D. Michaelis, and their coadjutors and successors, Heyne, Blumenbach, and Eichhorn, are some of the brightest in the annals of German literature and science. Thousands of young men from all parts of Germany and of the world, have here received their education. Indeed Göttingen has heretofore been better adapted to attract students from foreign countries, than most of the other German universities, not only through the celebrity of its professors and its library, but also through the free and liberal spirit which pervaded the lectures, exhibiting less of a local and exclusively national character, than was common in other places. The extensive cultivation of classical literature,* and also of politicst

* [There are three or more professorships of *classical literature*. The *first* chair is filled by the professor of Poetry and Eloquence, a member of the Philosophical Faculty, and by virtue of this, competent to officiate in his turn as rector or pro-rector. He delivers the Latin orations at the public solemnities, and he prepares Latin poems (a class of productions of great merit) on extraordinary occasions.

The works of the Greek poets, commonly read and explained, are Homer, Hesiod, Pindar, the Gnostic Authors, the Epigrammatists, Eschylus, Sophocles, Euripides, Aristophanes, Theocritus and Apollonius Rhodius.

The study of the Greek historians, philosophers, critics and biographers keeps pace with the explanation of the Poets. Herodotus, Thucydides, Xenophon, Plato, Aristotle, Plutarch, Demosthenes, Lysias and Longinus are the prose authors generally resorted to.

The authors in Roman literature, usually read and explained with all the profuseness of philological learning, are Cicero, Plautus, Terence, Lucretius, Horace, Virgil, Tibullus and Propertius, Tacitus, Quintilian, Pliny, Lucan, Silius Italicus, Valerius Flaccus, Persius and Juvenal.

† A course of lectures on *Politics* comprises national economy, political economy with its history, finances, the system of police,

and history,* which are subjects of universal interest, have been the chief characteristics of Göttingen. The gentlemanly tone which prevailed among the professors and in society, has operated also on the students, who are generally speaking of a higher class than are to be found at most of the other universities, with the exception of Berlin.

At present, the general characteristics of the society at Göttingen are etiquette and formality. The university is also regarded as reposing upon its laurels,—as sustaining itself upon its former stock of reputation, rather than as making new accessions. The giants of former days in all the faculties are gone, and their mantles have descended on comparatively few of their successors. They have passed away, and are well nigh forgotten in the place of their fame. Few, if any, can tell where Michaelis is entombed. Heyne lies buried in the corner of a churchyard just out of the city, where his grave is marked by a solitary tree; but neither of the lives, nor of the graves, of most of the celebrated men who have lived and died here, are there now any memorials. This however is not peculiar to Göttingen, but is a national feature.

The names now most prominent in the theological faculty are the two Plancks, father and son; of whom the elder has sustained a high rank as a historian of the church; while the younger, after a youth of the highest promise in the department of New Testament philology, is now entirely broken down and lost to science through the effects of epilepsy; Pott; Lücke, the commentator on the writings of John; Reiche, a young man of promise.

statistics, and the diplomacy of Europe. Heeren's *Reflections on the Politics of the principal Nations of Antiquity*, and his classic *History of the System of European States*, are standard works on this subject.

* The study of *History* is extensively cultivated in all the universities. The history of the states of antiquity; general history of mankind; history of modern Europe and its colonies; Monography, or the description of the physical peculiarities of the different nations of the globe, in connection with geography; the history of the middle ages; the history of Germany; literary history of modern Europe; critical history of German literature, and similar topics, are subjects on which separate lectures are delivered.] Ed.

The faculty of law lost its chief ornament in the retirement of the younger Eichhorn. The medical faculty is celebrated. In that of philosophy the venerable Blumenbach still lives, the ornament of science and the patron of Americans; Heeren the political historian, the son-in-law and biographer of Heyne, is there; as also Dissen; Mitscherlich the editor of Horace, who sleeps on his former name; Benecke; Gauss, 'le plus grand des mathématiciens'; Otto Müller, a young man, and a first rate investigator of classical antiquities; Ewald, a still younger man, the author of a Hebrew Grammar and various other works on oriental and biblical literature; a man of extraordinary attainments for his years, but hasty and not always solid in his judgments. The university has recently made a great acquisition in obtaining Jacob Grimm, formerly at Cassel, the author of the German Grammar, as professor and librarian.

Göttingen is rather on the decline as to the number of students. The improvements in the Prussian universities, and the foundation particularly of those of Berlin and Bonn, draw away many who would otherwise have come to Georgia Augusta. In the summer of 1825 there were 1545 students; in that of 1826 there were 1452; of whom there were pursuing theology 309, law 700, medicine 258, philology and other branches 185. In the winter of 1829-30 there were less than 1300. The average expense is usually estimated at 300 rix dollars.

The library of Göttingen is one of the largest, and for practical uses the best, on the continent. It is indebted for its present arrangement and high value principally to Heyne, who went upon the principle of purchasing useful books, rather than splendid ones; so that with any given sum of money, he very probably purchased twice as many books as an Englishman would have done, and those of equal value in themselves to the student. The number of books is often said to be near 300,000; but from minutes made on the spot in 1826, it appears to be 230,000. The arrangement of the manuscript alphabetical catalogue is such, that it oc-
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copies 150 folio volumes. For the increase of the library the government appropriates 3000 rix dollars (about £446) annually; though in particular cases they are permitted to exceed that sum. The library is open every day for reading and consultation; and the students are allowed to take out books on the usual terms. The interior of the library in Göttingen, particularly the hall of history, is one of the most interesting spots for a scholar, that the old world presents. Other libraries have a more splendid location; but there is here so much neatness and simplicity, such perfect order and utility of arrangement, such an adaptation of the means of learning to facilitate the acquisition of it, that the mind of the beholder receives a deep impression, and loves to recur in idea to these ancient and venerable halls, long after the traces left by literary pomp or princely grandeur have faded from the memory.

The religious character and influence of the university of Göttingen, may be summed up in a few words. Orthodoxy is acknowledged here, but not evangelical piety, with a very few exceptions. In 1827, one of the *privatim docentes* who had been in England, attempted to institute private religious meetings or conferences, but was put down by the university, backed by the government. He was obliged to abandon his place, and is now a missionary in the Ionian islands. It is not, however, to be denied, that he proceeded incautiously, and thereby awakened an opposition, which, perhaps, would otherwise have slumbered. Still, the practical influence of the university is against evangelical piety, and goes thus far directly to favour the spread of rationalism.

VIII. GRIEFSWALDE is the smallest of the Prussian universities, situated near the shore of the Baltic, in a region where there is little to attract students from other quarters. It was founded in 1456, and is the only one in Prussia, which is in some small degree independent of the government in its administration. There is a very fine building for the library, collections, and lecture rooms. The library contains about 50,000 volumes. The most known professors of theology are Kosegarten,

a pupil of De Sacy and one of the first, if not the first, of the oriental scholars of Germany; Pelt, formerly of Berlin; and Böhmer, author of an "Isagoge in Ep. ad Coloss." These are all young men. The number of students in 1827 was 160.

IX. HALLE has claims of peculiar interest in the history of theology, from the circumstance that it was founded in part, at least, through the influence of the pious Spener in 1694. The first occasion of its foundation was the secession of the jurist Thomasius from Leipsic, with a great number of his pupils, to whom he continued to deliver lectures at Halle. Spener's influence occasioned the appointment of Breithaupt, Anton, and that man of God, Francke, as the first theological professors. Halle therefore became the seat of all Francke's exertions, and of that school of piety and deep religious feeling, which forms an era in the history of the German churches. Nor was there any want of learning, strictly so called. Francke, with all his active duties, was a distinguished biblical scholar for his day; while the name of Thomasius ranks high in the history of German jurisprudence; and the two brothers I. H. and C. B. Michaelis, as also Cellarius, were certainly not inferior men. The tone of piety, however, began to give way with Baumgarten; and at length the foundations of faith in a divine revelation were undermined by Semler. Nösselt and some others still regarded themselves as orthodox; and within these few years (1825) their contemporary, the venerable Knapp, has closed a long life of unobtrusive, but consistent piety. He stood however alone; while rationalism, through the exertions of Wegscheider, the countenance of Gesenius, and the indifference of Niemeyer, had obtained firm footing, and seduced the understandings of the great body of the students.

The translation of Professor Tholuck from Berlin to Halle, as the successor of Knapp, gave the first occasion for open hostilities. The theological faculty, or at least, the principal members of it, protested against his coming, as being notoriously of different views and feelings from themselves, and as having already pronounced sentence

against them before a public assembly in London. He came nevertheless; and the amiableness of his manners, combined with his uncommon and unquestioned talents and learning, served in no long time to wear away the violent prejudices which had existed against him. The year from the spring of 1828 to that of 1829, he spent in Rome; and then returned to his duties with increased vigour and influence. The difficulties which occurred in Halle the last winter, although neither occasioned nor promoted by himself, turned again for a time the popular current against him; but the excitement has, probably, ere this time subsided, and we may securely trust that God will here, as everywhere, overrule all apparent evil for good. In person, Professor Tholuck is slender and feeble; his conversation is uncommonly engaging and full of thought; and although not yet 36 years old, he possesses a greater personal influence and reputation than any other theologian of Germany. To an American Christian, who travels on this part of the continent, Tholuck is undoubtedly the most interesting person whose acquaintance he will make.

Gesenius is already so well known in this country, that a short notice of him may suffice here. He is also an instance of great precocity of learning; the first edition of his Hebrew Lexicon having been published before the age of twenty-four, his larger Hebrew Grammar at twenty-seven, and his Commentary on Isaiah, which placed him in the first rank of biblical critics, before thirty-two. His manners have more of the gentleman and man of the world, than is usual with German professors; and a stranger who should meet him in society, would never suspect that he was a laborious and eminently distinguished philologist; much less the first Hebrew scholar of the age. He has now been several years employed upon his *Thesaurus* of the Hebrew language, and has in the meantime published three editions of his Manual Hebrew Lexicon, the first of which was translated several years since by Mr. Gibbs. He is now occupied with an edition of the manual lexicon in Latin,

which is to be completed in the coming spring;* and is at the same time making preparations for the more rapid completion of the *Thesaurus*, the first part of which was published in 1828. Thilo, the son-in-law of Knapp, is highly esteemed as a lecturer on ecclesiastical history and exegesis of the New Testament. Wegscheider is sufficiently known, as the standard bearer of rationalism in its lowest forms. Ullmann, formerly at Heidelberg, has a good reputation in ecclesiastical history, and is one of the editors of the "*Theologische Studien*." Rödiger, a private teacher, is a fine oriental scholar, and superintends the publication of Freytag's Arabic lexicon.† He has also recently published an edition of Lockman's fables with a corrected Arabic text and glossary, for the use of beginners in that difficult language.

In the faculty of law, the names of Mühlenbruch and Blume are advantageously known; and as a comparative anatomist, Meckel takes rank of all others in Germany. His collection, founded by his father and augmented by himself, is the best private collection in that country, if not in the world. In the philosophical faculty the aged

* [This Lexicon was published in 1833, and may be regarded as an abstract of his *Thesaurus*. The Manual contains the results of his investigations, while the larger work will contain the investigations themselves or the results in a more extended form.]

† [Now finished in 3 vols. 4to. A truly welcome present this, to all who interest themselves in Arabic literature! So all will acknowledge, who have themselves experienced the difficulty of obtaining books for the study of this noble language. A Golius was very rarely to be met with; Meninsky and Castell were also scarce and dear, besides the inconvenience of arrangement which characterizes them, and renders it so laborious to consult them; Willmet and Scheid are both very rare, and cover only a few particular books; and besides these there are only the meagre Glossaries appended to different Chrestomathies, the best of which are those of Oberleitner and Kosegarten. But here we have a work, which places the Arabic language in this respect almost on a level with the Greek and Latin. The author's first plan was to give a new edition of Golius, with corrections and additions; but he soon found reason to make a new work of his own, founded on the celebrated Arabic lexicons of Djeuhari and Firuzabad, the last of which is more commonly known as the *Camooos* or *Ocean*. The work is most beautifully printed.]

Schütz, Gruber, Leo, Bernhardt, and others, have a high reputation.

The number of students has been increasing for several years. In 1829, there were 1330; among whom were 944 students of theology, 239 of law, 58 of medicine, and 89 in the philosophical faculty. The average cost of residence here is from 200 to 250 rix dollars per annum. The library contains over 40,000 volumes, and occupies a building by itself. The king has also granted 40,000 rix dollars (about £5,950) for the erection of an edifice for the university; but the foundations of it are not yet laid.

The theological seminary in this university has five classes, viz. in the Old Testament with Gesenius; in the New with Wegscheider; in systematic theology with Tholuck or Weber; in ecclesiastical history with Thilo; and in *Homiletik* with Marks. The philological seminary, formerly under Reisig, is now directed by Schütz and Meier.*

* Halle is also the seat of Francke's celebrated orphan house. This stands in no connexion whatever with the university; except that the directors of the former are, and always have been, professors in the latter. Francke commenced his exertions in behalf of orphans in 1694 with two children, to whom a third was added, before he had a thought of any larger establishment. From this small beginning it grew up in a few years to an immense institution, or cluster of institutions, not only for orphans, but for the education of all classes of children and youth. The establishment now consists of the following schools: 1. The orphan house, in which nearly 5000 children of both sexes have been educated. Boys of bright parts are prepared for the university; the others mostly learn trades. The number formerly admitted at once was 200; but the diminished revenues do not suffice at present to maintain more than 100. 2. The royal *paedagogium*, in which boys of the middle and higher classes are received as in a family, and regularly educated. 3. The Latin school, intended by Francke as a classical school for the children of the poor. It receives boarders, and also city scholars. In 1809 the two city gymnasia were united with it; so that at present the schools of the orphan house are the only classical schools in Halle. 4. The German school, originally established for the children of the poor; but now consisting of four divisions, two of which are for boys and girls who pay for their tuition; while the other two are free schools for the poorest class.—All these schools

X. HEIDELBERG is the protestant university of Baden (comp. Freiburg), and is the oldest university of protestant Germany, having been founded in 1386. The city

serve also as a sort of seminary for teachers; indeed, the greater part of the instructors are students of the university, who spend an hour or two every day in giving lessons at the orphan house.—As an appendage to the orphan house, may also be regarded the Canstein Bible Institute, founded in 1712 by the Baron von Canstein, an intimate friend of Francke's. The object of it was and is, by means of standing types, to furnish Bibles in different forms at the very lowest rates. More than two millions of Bibles, and one million of Testaments, have thus been put in circulation.

The revenues of the orphan house establishment come from the following sources: 1. Various large farms and other real estate. 2. Several secret medicines, bequeathed by the inventor, which had formerly an immense sale of about £4250 annually; but are now unimportant. 3. An extensive apothecary's shop. 4. The book and printing establishment, commenced by a young man who printed a sermon of Francke's, and afterwards sustained and advanced by the sagacity of the latter, until it has become one of the most important in Germany. 5. The money paid for tuition and board. 6. The royal bounty. The present king of Prussia was the first to aid the diminished funds of the establishment by an annual appropriation. 7. Charitable contributions. These were formerly very great; indeed the whole establishment sprung from charity; but of late years, they have almost entirely ceased.

There is one principal building of very large dimensions, fronting on a large square or *place*; from each end of this, other buildings extend back, forming a court 800 feet long, which is closed at the other end by the buildings of the *paedagogium*. These were all erected in the life-time of Francke, and through his agency; and the holy faith and energy of this remarkable man were in nothing more fully displayed, than in the manner of their erection. They were built literally *in faith*; having been undertaken by him without resources, except in his dependence, under God, on charitable contributions; and these not only not yet realized, but not yet even promised. Not unfrequently was it the case, in moments of despondency, when not a *groschen* more remained to pay the workmen, and the good man had poured out his soul in prayer to God for help, that he received, often by the post, from persons known and unknown, sums sufficient not only to pay off the debts already incurred, but to carry on the work for a time without further difficulty or risk.

On the rising ground at the east end of the long court above mentioned, there was erected last winter a bronze statue by Rauch, representing Francke supported by two orphans. This monument is in the first style of art; but one beholds it with less pleasure, because it is so much at variance with the whole character of the

is small and inelegant ; but most charmingly situated at the point where the Neckar issues from its mountain gorge upon the great plain of the Rhine. It would be difficult to select a spot of more loveliness, crowned as it is by the majestic ruins of the ancient castle, the finest and most picturesque object of the kind to be found out of Italy. The university suffered much at the plundering of the city by Tilly in 1620, when its celebrated library was carried off and transferred to the Vatican ; whence nearly a thousand manuscripts relating to German history were recovered, at the general settling off of national accounts in 1814. Since the place came under the dominion of Baden in 1802, the university has been flourishing.

Among its theological professors are the venerable Schwarz, the author of a valuable work on education ; Paulus, a man of taste and genius, but one of the leading rationalists of the day ; who, at the age of threescore years and ten, seems daily more zealous to destroy the faith of Christian believers ; Umbreit, the author of commentaries on Job and the Proverbs, and joint editor with Ullmann at Halle of the "Theologische Studien." Daub as a philosopher, Creuzer as a classical antiquarian, and Schlosser as a historian, are distinguished ; the latter in particular deservedly enjoys a high reputation.

The number of students in the summer of 1829, was

man, whom it was intended to honour. The buildings which surround the court, and the thousands of pupils who have gone out from them upon the theatre of life, are the strongest evidence of Francke's pious charities and unwearied energies, and constitute his best and most enduring monument. These institutions were all founded in prayer, and for a long time nurtured in piety and a pure and living faith ; but in proportion as the spirit of Francke has disappeared in the German churches, so also it has ceased to direct even the work of his own hands ; and that "Holiness to the Lord" which was once inscribed on all these walls, exists no more except in name. Indeed, the state of all the orphan house schools was generally supposed to be such as to require a thorough examination and many reforms. Commissioners for this purpose were appointed by the government in April last ; one of whom, on the religious state of the establishment, was Heubner of Wittemberg ; but no intelligence has yet been received of the results of their inquiries.

602; of whom 55 were pursuing theology; 290 law; 168 medicine; and 89 other studies. The library contains about 45,000 volumes,

XI. JENA is a small city of 5000 inhabitants, situated in the deep valley of the Saale, in one of the pleasantest parts of Thuringia, about nine miles east of Weimar. The university was founded in 1558. Its reputation has suffered much in recent times, from the spirit of insubordination and licentiousness prevalent among the students; who, aware of their importance to the inhabitants, and unrestrained in this little city by any voice of public censure, readily gave into all the extravagance of imaginations heated by the excitement of the day, and neither under the regulation of sound judgment, nor controlled by the advice of wise and prudent instructors. It was also unfavourable for Jena, that Sands the insane murderer of Kotzebue was one of her students; as this action, which was no doubt the effect of a disordered intellect, was held to be an index of the views and feelings, supposed to prevail among the students in general. At present, however, these prejudices have, in a great measure, died away; and the students of Jena are not regarded as greater demagogues than many of their brethren.

The theological faculty has had a succession of eminent men; the Walchs, Griesbach, and others spent their lives here, and Eichhorn and Paulus commenced here their careers. It now possesses Baumgarten-Crusius, H. Schott, and Hoffmann, the author of the Syriac Grammar. Luden, the successor of Schiller in the chair of history, is one of the brightest names among the many historians of the country. The number of students of late years has been from 500 to 600. Of the size of the library there is no recent specification.

XII. KIEL is mentioned here, because it is strictly a German university, belonging properly to the province of Holstein, the possession of which now gives to the king of Denmark a seat and voice in the Germanic confederation. The university was founded in 1665, and has a library of 100,000 volumes. In the summer of 1828 there were 380 students; in the winter following 333; 194

of whom 152 were in theology, 105 in law, 57 in medicine, and 19 in other studies. The only professors generally known, are the theologian Twesten, and J. Olshausen, who is now engaged in publishing the original of the *Zendavesta*.

XIII. KOENIGSBERG lies on the Baltic, in the remote north-eastern part of the Prussian territories; and its university, founded in 1544, is therefore at present frequented only by students from the vicinity. The whole number in the autumn of 1829 was 441, viz. 221 theologians, 134 jurists, 23 students of medicine, and 63 in other branches. The library contains 60,000 volumes. The university is not wanting in able professors; as is proved by the names of Olshausen, von Bohlen, Gebser, Dinter the rationalist, in the theological faculty; and in the philosophical, those of Lobeck, Graff, Herbart, and others. The latter now occupies the former chair of the philosopher Kant.

XIV. LEIPSIK was founded in 1409, by an emigration of teachers and scholars out of Prague, and has always taken rank among the most distinguished of the schools of Germany. Its annals are graced by the names of Gellert, Ernesti, Platner, Morus, Dathe, Keil, Tzschirner, and many others of like distinction. Among its present professors are, in theology, J. A. H. Tittmann,* the editor of the Greek Testament, and author of various works on exegesis and systematic divinity; Goldhorn, Winzer, and Hahn, of whom some account is given in a subsequent article of this work. In the philosophical department are Beck and Schaefer, the editors of various classical authors; Hermann, the coryphaeus of Greek philologists; Lindner and the younger Rosenmüller, so prolific in commentary, but whose works advance so slowly as to exhaust the patience of those who wait for them. The medical faculty possesses Heinroth, distinguished as a medical and philosophical writer, and known for his skilful treatment of the insane.

The number of students in the summer of 1829 was

* This distinguished man died 30th December 1831.

nearly 1400, of whom those pursuing theology were by far the smallest class. In the other three faculties the numbers were nearly equal. There are here two philological seminaries, under the direction of Beck and Hermann. The library contains 60,000 volumes and 1600 manuscripts.

XV. **MARBURG** is the oldest protestant university, having been founded in 1527, soon after the light of the Reformation had begun to dawn. Its yearly income from funds under its own management is about 20,000 rix dollars, to which a like sum is added by the government of Hesse Cassel, to which Marburg belongs; making in all an annual income of about £5950. The library has rising of 100,000 volumes. The number of students in the summer of 1829 was 351. The most known of the theological professors are Justi, the author of several works on the poetical writings of the Hebrews, and Hupfeld, a young and promising oriental scholar.

XVI. **MUNICH**. The university at this place was first founded in 1826, or rather was then established by the removal thither of the former university at Landshut. The project was a favourite one with the present king of Bavaria, who was himself educated at Göttingen, (where also his eldest son is at present residing), and wished to establish in the south of Germany a university which might vie with those of the north. The institution seems already to be very flourishing; the number of students has been stated at 1600. The writer has no accounts from which he can ascertain the numbers in the different faculties; nor does he know any distinguished names among the professors, except Schelling the philosopher, Oken the natural historian, and Mannert the geographer. The theological faculty is of course catholic. It has indeed been rumoured, that a protestant faculty was to be established; but this has not yet been done. The royal library at Munich is the largest in Germany or on the continent, except those of Paris and Copenhagen. It contains 400,000 volumes, and 8,500 manuscripts, many of which are very valuable.

XVII. **ROSTOCK** is the university of Mecklenburg.

It was founded in 1419, was transferred from 1437 to 1443 to Griefswalde, and again from 1760 to 1789 to Bützow. It has a library of 80,000 volumes, including the very rare collection of oriental books and manuscripts made by the late O. G. Tychsen, its most distinguished professor. Among the present professors are Hartmann, the author of the *Linguistische Einleitung ins A. T.* and other works on biblical literature; and Fritzsche, the commentator on the Gospels. This is the smallest of the German universities, having only about 150 students, of whom nearly the half are usually theologians.

XVIII. TÜBINGEN. This university has the reputation of being the only one, which has not departed from the principles and doctrines of the Reformation; while the names of Storr, the Flatts, Süskind, and Bengel, have given it a peculiar lustre and influence among the friends of religion. It was founded in 1477, and early took a high rank among the literary institutions of the country. At present, the only names of note are Steudel in theology, Bohnenberger in physics, and Uhland the poet. There is also a catholic faculty of theology. The number of students in the summer of 1829 was 876, divided as follows: in theology, 226 protestants and 182 catholics; in law, 97; in medicine, 148; other studies, 229. The library contains over 130,000 volumes. In this university there is a peculiar institute or seminary for the education of theological students, to which we shall again advert in the second part of this article.

XIX. WÜRZBURG was founded in 1403, and after various vicissitudes has fallen at length under the dominion of Bavaria. It is a catholic university, and is most known abroad as a school of medicine; but it numbers among its professors no names which are celebrated in the north of Germany. It has a library of 100,000 volumes; and had in 1827 not less than 676 students, of whom 144 were theologians, 243 jurists, 158 students of medicine, and 131 in other studies.

Such is the list of the universities at present existing in Germany, exclusive of the Austrian states. In these

there are four universities, catholic of course, viz. Vienna, Prague, Pesth, and Innspruck in the Tyrol.* The following notice, written immediately after a visit to Vienna in 1827, describes the character of the Austrian institutions. "The university of Vienna, (founded in 1365,) like all those of the Austrian dominions, differs essentially from those of the other German states. It is merely a continuation or an extension of the gymnasium. Instead of a freedom of choice among the courses of lectures and professors, the youth must pursue a prescribed course and hear certain professors. On first entering the university, they must pursue a specified course in the philosophical department for two years; this all must hear. Afterwards they divide off into professions; the theologian pursues a specified course of four years; the jurist, one of four years; and the student of medicine, one of five years. All these courses are accompanied by strict examinations; and no one can hope to obtain a place in any shape dependent on the government, (and all places are so,) without a certificate of good behaviour and diligent study. There is no ostensible prohibition (since 1825) against studying at a foreign university; but one who does it, cannot hope afterwards to earn his bread at home; for every place, civil, judicial, medical, every place as an instructor of youth, and all the catholic ecclesiastical situations, are in the hands of the government, and are never bestowed without this testimony from a domestic university. The study of all history, except that of Austria, has recently been excluded from the course; and the young men are kept so busy as to allow them no time to pursue it in private. All this I heard in Vienna; and had previously been told the same in Prague, in relation to the university there." At that time there were in the theological faculty at Vi-

* [Vienna has the largest number of students—4600—owing to the fact that about one in 19 receives gratuitous aid. The students at Prague are 2300; at Innspruck 700. There are 230 gymnasia in Austria: 201 for Roman Catholics; 2 for the Greek Church; 15 for Lutherans; 10 Reformed Lutherans; 1 for Unitarians and others. Protestants and Jews may be admitted into the Catholic seminaries, without being compelled to attend on religious studies.]

enna 35 students ; in the law faculty 172 ; in the medical 283 ; and in the philosophical 25 ; in all 515. The medical school of Vienna has been and is still highly celebrated. Among the theological professors are Ackermann, who has given new editions of Jahn's *Archæology* and his smaller *Introduction to the Bible* ; and Oberleitner, the pupil and successor of Jahn, and the author of several works on oriental literature. He is a monk of the Benedictine order, and lives in a convent of the Scottish Benedictines. The library of the university contains 80,000 volumes. Besides this there is also the royal library, containing near 300,000 volumes, and a collection of manuscripts. It is arranged in an immense and splendid room, which however is too small for the number of books. The manuscripts and incunabula, in which the library is rich, are kept in separate apartments.

The university of PRAGUE is the oldest in Germany, having been founded in 1348 on the model of that of Paris. It flourished so much, that in 1409 it numbered 20,000 students. At that time discontents arose, and secessions took place, both of teachers and pupils, which gave occasion for founding the universities of Leipsic, Rostock, Ingoldstadt, and Cracow. Of the particulars of its present state, the writer has no information, except that it possesses a library of 100,000 volumes. The same is the case in regard to the university at INNSPRUCK, which was founded in 1672, disbanded in 1810, and again reorganized in 1814. That of PESTH was first established as a university at Buda in 1780, and in 1784 transferred to its present site. In 1829 there were no less than 1710 students, viz. 1243 Catholics, 142 Greeks, 172 Protestants, and 153 Jews. Among these 73 were pursuing theology, 381 law, 401 medicine, and 609 the studies of the philosophical department. It may be here remarked, that the Hungarians are active and eager in the pursuit of knowledge ; and many protestant students of theology visit especially the universities of Leipsic and Halle. In this latter, there are many stipends appropriated exclusively to students of this character. Besides the nineteen universities of protestant Germany proper, above specifi-

ed, there have formerly existed many others, which have been broken up in the vicissitudes and violence to which that country has been exposed. The following list contains their names, the date of their foundation, and the year of their dissolution so far as known : *Cologne*, founded 1388, now a gymnasium ; *Erfurt* 1392, suppressed 1816 ; *Trèves* 1472 ; its library of 70,000 volumes still remains attached to the gymnasium ; *Ingoldstadt* 1472, removed in 1802 to *Landshut*, and in 1826 to Munich ; *Mayence* 1477, suppressed in 1798 ; its revenues now belong to Giessen ; *Wittenberg* 1502, broken up during the wars, and afterwards united with Halle in 1815 ; *Frankfort* on the Oder 1506, united with Breslau in 1810 ; *Dillingen* 1549, now a gymnasium ; *Helmstadt* 1576, suppressed in 1809 under the Westphalian government, and some of its professors transferred to Halle ; *Altdorf* 1578, incorporated with Erlangen in 1807 ; *Rinteln* 1621, suppressed like Helmstädt in 1809, and Wegscheider transferred to Halle ; *Salzburg* 1623, suppressed in 1810 ; *Bamberg* 1648, suppressed in 1804.*

After this notice of the German universities, it may not be uninteresting to the reader, to know the present state of four other universities, which are either in themselves essentially German, or on the German plan ; and from their position may also be properly included in an article on the institutions of that country. They are the universities of Bâle, Strasburg, Dorpat, and Copenhagen.

BALE was founded in 1459, and has the names of Erasmus and the three Buxtorfs to boast of among its professors. In 1826, a Buxtorf, a descendant of the former family, still held the chair of Hebrew literature,—an old man who had reached the years, but not the fame of his fathers. At present, De Wette and Hagenbach are the only theological professors. The former is living here in a sort of exile ; but attracts more students than all the other professors together. The whole number, however, is less than 100, exclusive of the students of the

* See a complete list of the German universities at p. 8.

Missionary Seminary under Mr. Blumhardt, who are all enrolled as members of the university, in order to enter the ministry by the regular door. Their number is usually from 40 to 50. The library has about 36,000 volumes, and contains some valuable manuscripts, autograph letters of the reformers, &c.

The university of STRASBURG was founded in 1621. Having been broken up during the French revolution, it was reinstated in 1803, by connecting faculties of law and philosophy with a protestant faculty of theology. The study of medicine is pursued in a separate *Ecole de médecine*. Among the theological professors are Dahler and Matter; and to the philosophical faculty belonged the two Schweighäusers, of whom the elder, the celebrated classical editor, is recently deceased. The number of students is unknown.

The city of DORPAT lies on the great road between St. Petersburg and Germany, and although in the Russian territory, is yet mostly inhabited by Germans, and its university is in all respects on the German plan, is furnished with German professors, and was founded for the German students of the country. It has of late years been distinguished for its activity in natural science, and several of its professors have made extensive scientific journeys in the interior of the Russian empire, as well as to its south-eastern borders. The names of Ebers and the Parrots are distinguished. It has ordinarily about 400 students; and has a library of 40,000 volumes. Its observatory is celebrated.

The university of COPENHAGEN was founded in 1475; and has now about forty instructors, of whom sixteen are ordinary professors, and from 600 to 700 students. The general plan is the same as that of the German universities, but the usual courses are longer, and the whole system more rigorous. Students are admitted only after an *examen artium*; the first year is spent by all in the study of a prescribed course of philosophy, mathematics, physics, and astronomy; and it is only in the second year that the regular *Brodstudium* or professional study is commenced, which usually continues three or four years.

Before leaving the university they are subjected to a severe examination of several days, and reported as *laudabiles, haud illaudabiles, et non contemnendi*. This university examination is unknown in Germany, except in the case of conferring degrees. Copenhagen and the literary world have lately sustained a great loss in the death of Bishop Münter. Among the present professors of theology are Möller, Müller, and Hohlenberg, the latter a former pupil of Gesenius. In the philosophical faculty, the ornament of the university and of Denmark is the indefatigable Professor Rask, who, though still a young man, has resided several years in Iceland, and penetrated by land to India, for the purpose of tracing out the affinities of the languages of Western Europe and Eastern Asia. The library of the university contains 80,000 volumes, and a collection of Icelandic manuscripts brought home by Rask, which the writer had the pleasure of seeing under the guidance of the professor himself. The royal library is one of the finest in Europe ;* the number of volumes is sometimes specified at 130,000 ; but in the writer's notes, made on the spot in 1827, and on the authority of the librarian, the number is stated at 400,000, and it certainly cannot be less than four or five times as large as the university library. It is the only library on the continent or perhaps in the world, of which there exists a complete scientific catalogue, comprised in 132 folio volumes in manuscript. Here are deposited the oriental manuscripts collected by Niebuhr.†

* [The Royal Library of Copenhagen is one of the largest in the world. It was founded by Frederick II., and the building was completed in 1669. It has five divisions: 1. Northern library, contains every thing relating to Danish literature, and much of that relating to Sweden and Norway. 2. Many typographical curiosities relating to literature. 3. Very valuable collections of MSS., many of them oriental. 4. Ten or twelve thousand early printed MSS. [?] and books. 5. More than 81,000 engravings.]

The university library has now more than 100,000 volumes and many valuable MSS. Its oriental books are of great worth. The Classen library has 30,000 volumes, and is very rich in physics, mathematics, &c.] Ed.

† The university of Upsala in Sweden was founded in 1246, and has 24 professors; 14 adjunct professors; 60,000 volumes in its library; 1000 MSS.; a cabinet of coins. The students at the be-
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From the preceding statements it appears, that in the nineteen universities of Germany proper, there are on an average constantly more than 15,000 students in a population of about thirty millions. These are taught by more than 1000 professors and instructors. On the other hand, in a portion of the Austrian dominions containing a population of eighteen millions, there are four universities, in which we cannot estimate the number of students at more than 3600. If now we inquire into the causes of this success in the German protestant universities,—for only three out of the nineteen, Freiburg, Munich, and Würzburg, are catholic, and these are now conformed to the protestant model,—we shall probably be able to find them without difficulty, and be led at the same time to other interesting results.

The first reason, and a very obvious one, is the small number of universities in comparison with the whole population; there being only nineteen for thirty millions. Prussia with a population of thirteen millions has six universities with nearly 6000 students; the United States with about the same population have more than forty colleges. This, however, is no fair comparison, since it should lie rather with our professional schools. Even then it would not hold good unless the numbers engaged in professional study here were as great as there, which is by no means the case. Assuming that the average course in the universities continues three years, there are then 5000 annually, who complete their professional studies; and the like number who enter upon them. Of course, the fewer universities, the greater the concourse at each

ginning of 1834, were in theology 245; medicine 150; philosophy 328; and 249 not classed; total 1072. The whole number in 1820, was 830. The number of printing presses in Sweden is but 28—10 in Stockholm, 3 in Gottenburg, 2 in Upsala, 2 in Norrköping, and one each in three other places. There is one press to 97,840 inhabitants, the population being 2,741,000. The original works published in 1833 were 140. The translations from other languages are in this order—German, French, English. The periodicals, which have the largest subscription, circulate no more than 1500 or 1600 copies. The inhabitants are distributed into the following classes—nobility 10,000; clergy 14,000; burgesses 66,000; peasants or agriculturists 2,600,000; militia and civilians 50,000.

of them. If the same proportion between the population and the students were found in Austria as in protestant Germany, her universities ought to contain no less than 9000 students; or rather, taking into account that the usual course in Austria is four years, instead of three, there ought to be 12,000 students at her universities, instead of 3600. This fact serves to show the different spirit of these different portions of the great German family.

A second reason is the circumstance to which allusion has already been made, that in Germany the intellectual energies have no outlet in the ordinary channels of an active, practical, business life. Since therefore the means of acquiring external influence are in a great measure cut off; men of aspiring minds are driven to the cultivation of literature and science, as the only remaining means of acquiring fame and influence and profit. Indeed, for such as wish to obtain posts of trust and emolument, the regulation is compulsory, as we shall see more fully below. But in regard to all those who are not aiming at offices under government, if any such there be, the same necessity is laid upon them. In the whole of Germany there exists, for instance, no opportunity whatever of addressing a public assembly, except from the pulpit. The proceedings of all the courts of justice are private, and are mostly conducted in writing. Deliberative assemblies exist only in the few states which have the semblance of a constitution, and their sittings are never public. Popular eloquence, the eloquence of the bar, the eloquence of the senate, these mighty engines in kindling the spirit and arousing the energies of a nation, are to a German inaccessible and unknown. He has no opportunity of thus acting upon others, nor of being himself thus acted upon. He can come before the public only through the medium of the press; and hence it probably in a great measure arises, that the German press is so prolific; inasmuch as the ten thousand visionary schemes and projects, which in this country are thrown out in the ardour of public speaking or in the ephemeral columns of a newspaper, must there assume the more permanent form of magazines and books.

A third and more efficient reason than all others for the concourse of students at the universities of Germany, arises from the nature of the governments, and the relation which the universities sustain to them. It has been already remarked, that the various governments of Germany are in all their essential features despotic. They are, indeed, for the most part, mild and parental; but this must be attributed to the personal character of the rulers, whose actions are amenable at the tribunal of public opinion, and who yield to its decisions. This parental character certainly does not belong to the system; and it needs only a sovereign so lost to integrity and regardless of public sentiment, as to set at nought the bounds which custom has prescribed, to shew that there exists no higher power than his own will despotically exercised, and no legal or constitutional restraint whatever upon that will. The recent examples of Brunswick and of Hesse-Cassel are in point; and it is only the revolutionary spirit of the moment, which has operated as a check upon the exercise of the fullest despotism. The sovereigns of Germany universally hold the whole power in their hands; and there is not a place of honour or profit, from the minister of state down to the petty schoolmaster of a village, which is not directly or indirectly dependent on the government. Every lawyer is one, only so far as he is connected with the courts of justice, as an officer of lower or higher rank and name; every physician is one, only so far as he has the license and the sanction of the proper department; the church itself is but the slave of the civil power, and must do all its bidding. No man can devote himself to the service of his divine Master, and proclaim salvation to the perishing souls of his fellow-men, but in the way which the government directs. Were he to attempt it, without having yielded obedience to all the prescribed formalities, there is not a spot in Germany where imprisonment or banishment would not be his lot. The government mixes itself in every thing, prescribes every thing, will know every thing, and prohibits every thing, which does not strictly coincide with its own interests and will.

In this system of things, the universities act a conspicuous and necessary part. They have been established, and are supported by the governments, as seminaries to train up and qualify young men for the offices of church and state,—those offices which the governments alone can give, and which, as a universal rule, they give only to such as have received a university education. No one is permitted even to ask for an office in the state, or a station in the church, or for employment in the courts, or for practice as a physician, unless he has been at a university. This is a *sine qua non*, a previous question, which, if answered in the negative, precludes all other questions. The only exceptions are in the case of village schoolmasters and the department of mines ; for both of which there are special seminaries, which take the place of a university course. The universities then are interwoven with the very system of government ; they form an essential feature in its policy ; and from the very nature of their relation to it, they must for ever remain under its immediate control. They are not independent literary institutions, at which only those who please may drink of the waters of knowledge at the fountain ; but they are the creatures of the government, to which all those who will get their bread in a professional calling must resort.

It is easy to see, however, that this state of things must have a prodigious influence on the character of society ; that while the governments thus act directly in augmenting the number of those who frequent the universities, they afford in this way an opportunity for the universities to react upon the governments and upon the people, by exerting and cherishing a love of literature and science, and a spirit of liberal inquiry and deep investigation, in those who are to be the future servants of the church and nation,—who are to be the guardians of the health, the protectors and interpreters of the rights, and the shepherds and bishops of the souls, of millions of their fellow-men. Such was once Wittemberg ; and it produced the Reformation. Impressed with the magnitude of these considerations, how should Christians be constrained to pray without ceasing, that these fountains may again be cleans-

ed ; that pure and undefiled religion and morality may again prevail and abound there ; and thus these institutions become once more, what they once have been, a rich blessing to the church and to the world.

In this connection, we may also discover the ground of another feature in the German universities, which has often struck the literary men of other countries with surprise, and for which no satisfactory reason has usually been assigned. This is, the general character for diligence and unremitted study, which belongs to the students of Germany as a body. In all the universities, it is true, there are those who seem to regard it as the chief object of a residence there, to set at defiance all authority and all law, to escape as much as possible from the thralldom of all discipline, and to make it the great end of all their exertions to counteract, so far as they may be able, the purpose for which they were sent thither by their friends, and lay a broad foundation not of future usefulness, but of future depravity. Such characters however are not confined to the universities of Germany ; nor do they even there, as has been already remarked, constitute the greatest, nor even a great proportion of the whole number of students. To the great body must certainly be assigned the praise of diligent and patient study. Many of these, no doubt, are actuated by the love of study in itself ; their thirst for knowledge spurs them on, and they make acquisitions, which render them objects of admiration to their companions, and to the learned world. But men like these are comparatively few ; and they are chiefly those who afterwards devote their lives to the pursuits of literature and science, as professors in the universities or in other similar stations. And even among these, among the thousand teachers of Germany, how few, comparatively, can be regarded as eminently distinguished. In proportion to the number of students, it may be safely averred, that fewer rise to distinguished eminence in Germany than in our own country. But, on the other hand, the great body of students are there carried forward far beyond our ordinary standard, and study with a perseverance that is with us rare.

What then is the cause of all this diligence? is a question often asked. Is it because the German youth have more solidity, more seriousness of character than our own? This assuredly is not the case; for Americans, and the American youth, possess a character of serious earnest, which is unknown in Europe. Is it then the effect of example, a sort of hereditary or traditional diligence, which has been handed down for ages, and become so habitual at the universities that none can escape its influence? Something of this, indeed, there may be; but its effects are comparatively small; for the annals of former days tell of scenes of idleness and dissipation, which would not be tolerated at the present time. But the chief secret lies here, as before, in the direct power of the governments over all places of honour and profit; in the general requisition of a university education as a *sine qua non* preparation for every public station; and lastly and principally in the fact, that no one is even then admitted into any profession, nor to hold any office whatever, without being first subjected to two, and sometimes three, severe examinations. Here is the stronghold of the governments upon the students, and the main secret of the good behaviour and diligence of the latter.

Of all who enter the universities, there are probably not so many as one in ten, who are not looking forward to an employment under government; that is to say, there are not so many who are expecting to subsist merely upon their own resources. They all know moreover full well, that the government not only keeps a watchful eye over their conduct while they are students, but that when they have passed through the regular time, they must undergo examinations, not in name alone, but in rigorous earnest, and before men of tried ability. If they fail here, they are indeed permitted to make one more trial; but if they fail again, the fruits of their years of toil, and their hopes of future subsistence, are gone for ever. They can never again be admitted to an examination, either under their own government, nor under any other in Germany. It is here that the governments press with their whole weight upon the students,

and compel a diligence which can know neither remission nor rest, until its great object be accomplished.*—It is

* The number of hours which German students spend each day in study, is of course different in different individuals. Generally speaking, their literary men do not push their studies far into the night, but pass their evenings with their families or in society. The same is also the case with the learned men of Paris; they do little or nothing after 5 or 6 o'clock, the usual dinner hour. When we hear of a professor's studying 16 or 17 hours a day, we may usually set it down as an exaggeration. The most that can be made of the assertion is, that his whole day is taken up with literary pursuits, without any intervals devoted to exercise or society. But this time is not spent in laborious *study*, properly so called; unless lecturing, the reading of newspapers and journals, the writing of letters, and any conversation which passes at his room, comes under that denomination. A general feature of the German scholars is, that they live a very sedentary, and in some respects secluded life; and this serves perhaps to account for the fact, that their literature has more learning, but less of elasticity and nerve, than that of English scholars. The modern fine writers of Germany, on the other hand, who have established and cultivated a national literature, have mostly been men of social habits, and have mingled much with the world.

Connected with this subject is that of the *health* of the continental students. It is often asked, how they are able to pass long lives in a regular course of hard study; while American literary men so often break down with dyspeptic and other complaints. The former do not escape the "ills that flesh is heir to;" but it is true, that the fashionable disease of the day with us, is unknown, or at least is not fashionable, on the continent. This however cannot be set down to the score of diet; for the continental scholars eat and drink and sleep like other men. They love their glass of wine too; and German scholars moreover love a warm supper before going to bed. They also drink coffee twice a day, in the morning and after dinner; and take comparatively little exercise. Yet with all this, they generally enjoy good health; or at least suffer only from those complaints which arise out of a sedentary habit. The cause of this difference in the two hemispheres, it is not the province of the writer to inquire into, nor is this the place for such an investigation. Suffice it to say, that *there* scholars are trained to study from childhood; and do not, as is often the case *here*, after a youth of labour and habits of great activity, change at once and adopt a sedentary life.

In respect to the article of food, there are three things which strike an American, and may probably have some influence in regard to complaints of the stomach, viz. that the inhabitants of the continent eat, as a general rule, less meat than we do; that in

in these circumstances too, that a check is found upon that entire liberty of study, which is represented as the characteristic of the German system. A student who has made choice of his profession, is indeed left to select his instructors and arrange the course of his studies at will ; he may also hear as many lectures in other departments as he pleases ; but still the certainty of future examinations does not permit him to neglect the studies of his proper course ; he must first and at all events make himself acquainted with those branches, on which he is to be examined.* Nor can he do this by mere memory, or by studying the answers to a set of questions. The day has gone by, when a young man could be *ground* into a

both the German and French style of cookery, the food of all kinds is much more thoroughly done than with us ; and that the continental custom of serving the dishes in succession at meals, instead of placing all on the table at once, obliges them to eat much more slowly than we are accustomed to do. A dinner or supper table is there a place of animated conversation ; which of course occasions many interruptions, and affords opportunity for the appetite to become satisfied, before the stomach is overloaded.

There is also a moral cause, which seems to have no little influence on the general health and spirits of their scholars ; and this is, that in their hours of relaxation they unbend the mind much more than is usual here. While they are in their studies and lecture rooms, their minds work with intense effort ; but when they come out, and especially in society, they are like children let loose from school ; their labours and studies are for the time forgotten, and they meet each other not as professors or learned men, but as familiar friends and every day acquaintances. This is connected, no doubt, with the great feature of European character, which at once strikes Americans, that all ranks and classes there have a far greater *enjoyment of the present*, than ourselves. Our national character, so far as we have one, consists in a spirit of enterprise, excited by the desire of improving our condition. It may be shortly styled a *love of gain*,—gain not only of wealth, but also of reputation, of comfort, of happiness,—gain of all that we suppose to be desirable. Our enjoyment consists more in the striving after this gain,—in anticipation, and in the very act of acquiring ; *theirs*, in possession and quiet fruition.

* It is not uncommon for a student to spend the first year of his course in idleness, and afterwards give up all amusement and devote himself to severe study. In this case he is said, in their peculiar jargon, to *ochsen*, i. e. work like an ox.

state of preparation for an examination made under the authority of government ; whatever may still be the case at some of the universities, in regard to an examination merely for a degree.

If we look now for a moment at the actual state and character of the German universities, we shall find, along with all their vast and acknowledged advantages, several great and prominent evils, some of which have crept in gradually in practice and are susceptible of correction ; while others are inherent in the system itself. Of the former kind, is the want of personal intercourse between the professors and students. As a general fact, most of the professors have no intercourse whatever with their pupils except in the lecture rooms. They take no interest in them any further than to induce them, if possible, to attend their own lectures, and thus obtain the fee ; but do not take the trouble to inquire whether a young man properly improves his time, nor whether he has chosen the best course of study, or the best means to help him forward in his progress. Any parental interest in a young man, or watch over his moral development, is a thing, generally speaking, entirely unknown. Individual professors do indeed occasionally invite a few of their own particular pupils to their houses, but rather as a matter of ceremony, than out of any regard to their moral or intellectual culture. This evil has doubtless arisen, partly in consequence of the laborious and secluded lives of the professors, and partly from the great number of the students, which renders it impossible to be on an intimate footing with all. Still the evil might easily be corrected, could the professors become imbued with the proper spirit. A few, like Strauss and Neander at Berlin, and especially Tholuck at Halle, have begun a different course ; and in the latter instance, particularly, the results have been highly beneficial.

Another evil of the same class, is undoubtedly the present character and conduct of a portion of the students. Left to themselves, without any direct moral or civil restraints, and without inspection on the part of their instructors, it is no wonder that young men should choose

an errant course ; but it must be borne in mind, that the character which is now attached to the life of a German student, is the inheritance of other days, and was acquired when the indirect restraints were far less than they now are. Until within the last few years, the requisitions of the governments were much less strict than at present ; and a mere residence at a university was assumed as a sufficient qualification for office, without further or with slight examination. Under such circumstances, of course, those who entered the universities without any love of study, and merely to while away the requisite number of years, plunged at once into all the temptations and snares to which every assemblage of youth are exposed ; and the whole burden of reproaches which the student of the present day must bear, the feats of drinking, smoking, duelling, &c. may be referred back to those earlier periods. But this evil belongs not to the system, any more than it is inherent in our own schools of law and medicine, where the students are in like manner left wholly to themselves. It is in fact diminishing ; and in the universities of Berlin and Munich, situated in large cities, duelling and the other peculiar characteristics of a university life are comparatively unknown ; and the students have become, in a great measure, assimilated to the ordinary forms of social life.

On the other hand, we may also remark two evils, which seem to result from the system itself, and which cannot be corrected without a change in the whole form of education. The first arises from the plan of oral lectures, as at present conducted, where the student writes down the words of the professor. Now where such lectures are treated, as is often the case, simply as a clue to guide the learner's own reading and investigation, there is no plan of study more interesting or profitable ; none which excites to greater ardour, or prompts to more persevering effort. But the mass of young men engaged in study are not of this class ; they receive what is given them, and rest satisfied with believing it all on the authority of the professor. It cannot be denied, that the tendency of such a state of things is to fill the mind with

superficial knowledge, without exciting it to the cultivation of its own energies ; and it would not perhaps be too much to say, that while the real scholars of Germany are in advance of any thing that we can boast, the great mass of her clergy and civilians, while they know accurately that which they have learned, are less trained to habits of independent thought and the application of their knowledge to practical purposes, than the corresponding classes in our own land.

Another and more serious evil arises from the exclusive devotion to particular studies, which constitutes one prominent trait of the German plan of education. Indeed, the system of a division of labour is here carried to as high a point in regard to intellectual employment, as it is in England in respect to manual occupations. One theological professor devotes himself exclusively to the literature of the Old Testament ; another to that of the New ; a third, to systematic theology ; a fourth, to the history of the church ; a fifth, to practical theology. The same holds true in all other departments ; and the consequence is, that while they become radically acquainted with all that relates to that particular branch of study, they cultivate less thoroughly the other departments connected with it ; and leave entirely untouched many kinds of knowledge, which belong still more to the practical and ordinary course of human life. The result of all this is a want of general practical information, which is a marked characteristic of the educated men of Germany. They will overwhelm you with stores of argument and illustration on all topics of religion, morals, philosophy, and classical or oriental philology ; but if asked a question relative to the ordinary affairs of life, or in general history, or in geography, they are often compelled to be silent. It may probably be truly said of the character of the German mind, that, as a nation, they delight more than any other in abstraction, in pushing their reasonings to the utmost limits, regardless of consequences ; and hence have speculated oftener and wider beyond the limits of the human faculties, than any other people. Nothing is more true than that, in the words of their own Jean Paul, they

"hold the empire of the air," and have had more strange conceits and fancies than any other nation. The general causes of this state of things seem to have been, in part at least, the condition of society and the system of education among them, by which so many are trained up remote from the active duties of life, and thus lose all relish for practical objects. Of the 15,000 pupils at the universities, the greater part can never have the opportunity of becoming practical men; while they yet are taught to *think*, and their intellectual powers are urged to a high state of cultivation. In this way they are compelled to build their speculations, without any foundation of experience and practical common sense. What wonder, then, that these speculations should often prove baseless; the mere dreams of busy intellect, without the guidance of practical wisdom.

PART II.

COURSE OF STUDY AT THE UNIVERSITIES.

We have seen in the former part of this outline, that teachers in the universities and all those who engage in the practice of the various professions in Germany, are directly or indirectly dependent on the governments of the respective states, not only for actual employment, but also even for the previous license or permission to enter upon any profession or course of life. So far as it regards our present subject, all those who desire to become teachers of theology in the universities, or pastors of churches, have to submit themselves to various examinations required by the government, before they can make any application for employment in either of these capacities. Those who are preparing to become preachers, have also to pay attention to the subject of *Pädagogik*, or the science of school-keeping; inasmuch as every pastor is *ex officio* required to inspect and superintend the school or schools within his jurisdiction. To enable the reader the better to understand the several steps and gradations of this ministerial preparation in Germany, it will

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be proper here to exhibit a brief outline of the constitution of the German churches, and thus shew the manner in which the civil power directs and controls all the internal as well as external regulations, and all the movements of the ecclesiastical community. In doing this, we shall chiefly advert to the present system of the Prussian government, as the most extensive and complete; premising only that the description will apply *mutatis mutandis* to all the other states of protestant Germany.

In Prussia, as also in France, the whole subject of ecclesiastical affairs, public instruction, and the profession of medicine, is assigned to a particular department of the government, called the *Ministerium der geistlichen, Unterrichts-und Medicinal-Angelegenheiten*, the head of which takes rank with the other ministers of the crown. This ministry, or rather department of the ministry, has the direct and entire charge of all ecclesiastical matters; controls the consistories in the several provinces, and appoints all the members of them; and, either immediately or through the consistories and other subordinate branches of the government, appoints or confirms to all vacant ecclesiastical places or parishes. It has also the entire charge and control of all the universities, gymnasia, and other seminaries of learning of every species; appoints all the professors and instructors of every kind; and if it does not itself appoint the village school-masters, it fixes at least the necessary qualifications, without which no one can be permitted to become a candidate even for that humble office. The minister, of course, represents the king, and acts only in the king's name; and it is therefore through him and his department, that all rewards are bestowed in these several branches of the body politic; whether consisting in an increase of salary or in promotion, or what is more frequently the case, in the bestowment of some title or appellation of honour, a strong love for which is a predominating characteristic among all classes of the German community.

For the purposes of its civil administration, Prussia is divided into *ten* provinces. These again are subdivided into districts, varying in number according to the size of

the provinces. In each province there is a government, having in some respects jurisdiction over the whole province. In each district there is also a government, in some respects subordinate to that of the province ; but in most instances standing in direct communication with the several departments of the royal ministry in Berlin. In each province there is also a *consistory*, which has charge of all ecclesiastical affairs throughout the province. It is intimately connected with the provincial civil government ; the president of the latter being always president of the former. To the consistories belongs exclusively the examination of candidates for the ministerial office ; except that sometimes, in order to alleviate the burden which comes upon them from this source, a commission is established at a university, before which the first examination may be held. The consistory has also in many, if not most instances, the disposal of vacant livings within its jurisdiction. The location of the consistory is usually in the capital of the province. In the several districts, a clerical member of the consistory is attached to the local government ; and this is then charged with the various questions of local ecclesiastical policy, which occur within its bounds ; or, at least, it has concurrent jurisdiction ; and it would seem that questions relating to practical points are referred at will, either to the government of the district, or to the consistory of the province. In case of doubt, however, the district government does not refer the subject either to the consistory, or to the government of the province, but goes directly to the ministry of the king.

Between these consistories and governments and the pastors of the churches, there is still another intervening class or office, viz. that of Superintendent. To the office of pastor in a particular church, is associated the duty of *superintending* the neighbouring pastors and churches and the schools contained within a certain district. These districts are usually small, and the number of churches, various. In one sense these Superintendents are therefore *bishops*, inasmuch as they have an oversight over the churches ; but then this oversight seems intended

only to enable them to make report to the higher powers; for they have themselves no power of introducing improvements, nor of correcting abuses. In Saxony, indeed, they can examine and license the teachers of common schools; but this is not the case in Prussia. They have nothing to do with the *confirmation* either of adults or children, except in their own church; for this is everywhere the office of the pastor. They seem indeed, in Prussia at least, to be merely the organs of communication between the government and the lower clergy. The government seems never to communicate directly with a pastor; although the opposite is not true. A pastor may apply directly to the government of his district, or to the consistory; but the answer always comes to him through his Superintendent. The extent to which the power of the lower clergy is limited, will hardly be credited in this country; but it is illustrated by the following circumstance. In 1829 there was in Halle a great musical festival; in which the most distinguished singers and musical performers of northern Germany took part, to the number of more than five hundred. It was desirable to obtain for their accommodation the use of the largest church in Halle; but this could not be granted, either by the vestry of the church itself, nor by the Superintendent, nor by the magistracy of the city; nor indeed by any authority less than that of the district government at Merseberg. The use of the church on such an occasion for the performance of secular music, was indeed a great departure from the ordinary practice in regard to churches, and impinged so much upon the prejudices of the people, that a complaint was afterwards lodged with the ministry in Berlin against the government at Merseberg, for having thus abandoned the church to an unholy use. This complaint was made by orthodox and conscientious men, although the feeling which prompted it was common to many others along with them; but coming at that particular juncture, when it could not fail to be mixed up with the difficulties which were already in embryo at Halle, it cannot appear to our American feelings in any other light, than as highly injudicious.

In some of the states there is also the title of General Superintendent, or one who has the general oversight throughout a province. His duties, however, are chiefly nominal; or they consist at most in visiting occasionally the jurisdictions of the other Superintendents. Thus in the Grand-Duchy of Saxe-Weimar, there is a General Superintendent at Weimar, (formerly Herder, now Röhr,) and another at Eisenach, who are also the heads of the consistories in those places. In Prussia the title does not exist, except in the instance of a single person, who was appointed to that station a year or two since, with a jurisdiction over several of the Superintendents in the vicinity of Berlin. As a substitute for these officers, it would seem, and in consequence of his known preference for the English episcopal system, the king of Prussia has within a few years nominally appointed three bishops; but he has assigned them no general episcopal duties, and no episcopal jurisdiction. They seem to be merely a species of General Superintendents, with a more dignified title.

This then is the general system of arrangements in Prussia. The king's ministry retains the charge of all the universities in its own hands; it appoints all the professors and instructors, and prescribes the requisitions which shall be made on all those who will enter upon the sacred office, or become theological teachers. It appoints also the consistories, and commits to them the charge of examining the candidates, and often of nominating them to vacant places. To aid them in their duties it also establishes in the universities, when necessary, standing commissions for holding the first theological examinations. These are the several bodies to which a young man has to look, in order to enter the ministry, after he has completed his university course. The cases of doubt and difficulty which arise in the practice of the ministerial profession, may be referred, either to the consistory of the province, or to the government of the district.

Similar also are the regulations of Prussia in regard to those who will become teachers in the gymnasia, or other public schools. In every province there exists, along

with the consistory, a *school commission*, whose duty it is to examine in like manner those who are candidates for places as teachers. For this object also there are similar commissions in the several universities. All these are under the same department of the general government, or ministry; and bear the same relation to it in this branch of education, as the consistories and theological examiners do in the division of ecclesiastical affairs.

So it is in Prussia. In the other German states there is not always a special department of the ministry devoted to this object; but the affairs of the church are sometimes managed by an upper consistory, as in Saxony; or sometimes by two, as in Weimar; and these stand in direct communication with the sovereign and his privy council. In the kingdom of Hanover there are no less than six consistories; which would appear to possess the highest power in ecclesiastical matters, after the king in council. But the system of Superintendents goes through the whole land; and the lower clergy in general, as well as the course of theological education, are everywhere on the same footing as in the Prussian states.

We have already seen, (p. 19,) that students of every kind before coming to the university, must have gone through a course of preparatory study, usually at a gymnasium. It may not be useless, perhaps, nor uninteresting, to add here a few remarks supplementary to what was there said on this subject.

In all the gymnasia there are two semi-annual examinations, for those who are about to leave those institutions and enter the universities. These occur at Easter and Michaelmas, in April and September, at the time when the semesters of the universities are usually brought to a close. These examinations cover the whole ground of study during the course pursued at the gymnasia, and embrace the Latin and Greek languages, history and geography both ancient and modern, and the mathematics. They consist not only in oral questions and replies; but tasks are assigned in each of these branches, which the scholar is required to work out in writing, in a solitary chamber into which *he is locked up*.

In order to judge of his proficiency in Latin, extracts from Horace, Cicero, Livy, Tacitus, or Virgil are laid before him, upon which he is required to give a regular interpretation and commentary; and he is also obliged to make out a written exercise in Latin, while under lock and key. The same takes place likewise in regard to the Greek; in which, besides the task of the closet, passages from the Iliad or Odyssey, or from the tragedies of Sophocles, or from other writers, are assigned him for interpretation. In all the branches of history and geography the process is the same, viz. oral examination, and exercises written on the spot without the aid of books. In mathematics, equations and problems as far as spherical trigonometry are given, which must in like manner be solved without aid. Besides these subjects, on which all are examined alike, those who intend to pursue at the university the study of theology, are examined in Hebrew; for which purpose, passages from Genesis and the Psalms are laid before them to be regularly interpreted.

This system of *closet labour*, or the imposing of exercises to be performed in solitude and without the aid of books, though not a peculiar feature* of German discipline, is yet a favourite one, and is carried through all their examinations, even those appointed by the state. To perform well an exercise of this sort, presupposes, no doubt, if not a much wider range of study, yet at least a much more thorough acquaintance with the subjects of study, than is for the most part to be found in our country. The known necessity of sustaining such an examination, together with the consequences which flow from it, must also unquestionably exert a powerful influence on the mind of the scholar, and render him studious not only to lay up in his mind the outlines of knowledge, but also to fill up these outlines as he goes along; not only to ascertain the various sources from which he may draw, but actually to derive from them and

* It is employed also in some instances in the English universities; see Cumberland's Memoirs, p. 73. N. Y. edition.

treasure up that information for which he looks to them ; not only to fill up the store-house of his mind, but also to have his stores always at command, and become a *ready*, as well as a learned man. Indeed it may be said, that the German system of examination aims to exclude partiality and personal favour, and to ascertain the real amount and value of the acquisitions which every scholar has made.

Those who have thus sustained an examination at the gymnasia, receive a certificate of their progress and standing, which, according to their degree of merit, is the testimonial No. 1, or No. 2. There are also instances of those who receive No. 3. These are such as are adjudged, after trial, not yet to be fully qualified to enter upon a university course. With this testimonial, however, they are permitted to go to the university, but are excluded from all participation in the foundations for the assistance of indigent students ; and are moreover required, at every future examination, to exhibit evidence that they have made up for all previous deficiencies. It follows of course that No. 3 can be no very desirable species of testimonial, inasmuch as it subjects a student to inconvenience and to an inferiority of standing throughout his whole university course ; and the motives are therefore very powerful, which serve to impel a scholar to rise to a good standing, if not to eminence, in his preparatory studies.

Furnished with these credentials, the former scholars of the gymnasia repair to the universities of their respective states, and on presenting their testimonials, are admitted as students of the university, after receiving matriculation. All those who enter at the commencement of each semester, are usually matriculated at once, soon after the opening of the lectures. The ceremony consists merely in meeting the Prorector, who usually makes a short address, and reads to them the form of matriculation, by which they promise to obey the laws and honour the instructors. To this they give their assent, and confirm it by the *Handsschlag*, or shaking hands with the Prorector, which constitutes a species of oath.—Those who have not gone through a course of preparation at a gymnasium, or

who have left the gymnasium without undergoing an examination, are obliged to present themselves before a commission appointed for that purpose by the government in each university, and there sustain a trial similar to that above described. Students from the other states of Germany, or from foreign countries, are not required to be examined at all, unless it be their purpose to remain in the state where the university is situated, and enter its service.

This provision in respect to foreign students, is certainly a very liberal one. It admits them to make use of all the privileges of the universities, without laying upon them any restraint whatever. They are subjected to no examination on entering upon their course, and to none on leaving it, and are entirely free as to their choice of lectures and instructors. It is this which renders a German university so desirable a resort for an American student ; because it presents to him all the advantages which a nation of the most systematic scholars on earth can afford, without requiring of him any thing in return, either in the shape of antecedent preparation or subsequent examination. If indeed he wishes to take his degree, he must of course receive it in the regular way of examination and disputation ; unless, as has been the case with most of our countrymen, it be bestowed as a matter of favour. This however is but a name ; while the substance may be obtained without restriction.

It might perhaps, at first view, be supposed, that this system of entire freedom in regard to the students of other states, would enable young men to evade the strict regulations of the different governments in regard to examinations, and obtain a university education and subsequent employment in different states, without subjecting themselves to the usual rigorous trials. It might seem, perhaps, that a native of Saxony, for instance, could pursue his studies at the university of Göttingen in the kingdom of Hanover, and afterwards enter the service of Prussia. This however is by no means the case. He could indeed enter the university of Göttingen and reside there as long as he pleased, without examination, pro-

vided he disclaimed any intention of remaining in Hanover as a professional man ; but he could not afterwards establish himself in any profession in Prussia without first undergoing there all the examinations regularly required by the Prussian government, or producing evidence that he had already sustained equivalent ones in another state. He could not even go back to his native Saxony, and enter upon a professional course ; because Saxony, like all the other states, requires that, for this purpose, he shall have spent two years at the university of his native state. So that instead of any evasion, instead of deriving any advantage from thus studying at a foreign university, he suffers a positive disadvantage. Of course, cases of this kind never occur. Indeed, the different governments have their own systems so nicely arranged, and there is such a perfect understanding among them all in regard to the universities, that any erratic course of education is impossible.

We might also suppose, that the practice of receiving scholars into the universities, simply on the testimonials which they bring with them from the gymnasia, would lead to great irregularity and confusion ; that the students would come in every stage of preparation ; and would therefore be, in a great measure, incapable of proceeding together in a common path of discipline and study. Indeed, as applied to our own country, such a system would be fraught with insurmountable evils. Did our colleges, for example, receive students from the various academies on the simple testimonials of their former instructors, the door would be open for irregularities of every sort ; and that for the plain reason, that in our academies there is no uniform system running through the whole ; not even through all those of a single state. But in Germany the case is directly the contrary ; the governments of the respective states have established a uniform system throughout all their own gymnasia ; the course of studies in all is the same, or is everywhere equivalent ; the mode of examination in all is the same ; and of course the testimonials from the different gymnasia of any state have all an equal value. As there is in each university a commission or board, established by the government, to ex-

amine those for admission who have been prepared by a private course and not at a gymnasium ; so the officers of each gymnasium constitute a similar board, appointed in the same manner, to examine for admission to the university those who have been prepared under their care. Moreover, the parallel in our country would probably lie, not with our colleges, but with our professional seminaries. These might even now, without much danger, admit young men from the different colleges without further examination, on their merely exhibiting evidence of having honourably completed the regular college course. The course and system of instruction in all these institutions of ours, are in most respects so very similar, that an examination by the officers of a college might, so far as intellectual acquirements are concerned, be safely adopted as the ground of admission to a professional seminary ; or at least to those which make in this respect no greater requisitions, than are implied in a college examination.

The remarks thus far made are applicable to all the students who enter the universities, without respect to their future distribution among the various faculties. The only point of difference in regard to future theological students is, that they have also to sustain an examination in the Hebrew language. If now we look for a moment at the subjects, or the extent of the ground, on which the previous examinations are thus held, they might seem to a casual observer to be very limited, and to imply nothing of that depth and thoroughness, which are usually assigned as the characteristics of the German schools. It should however be remembered, that this thoroughness depends much more on the *mode* of instruction and study, than on the quantity gone over ; and that, after a certain point, the greater the amount nominally acquired, the less radical and real will be the progress of the pupil. The examinations above referred to, although apparently less extensive and various than those of most of our colleges, are to be viewed in connection with the fact, that they are mostly held in Latin, in which also the exercises of the higher classes of the gymnasia are usually per-

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formed; that the required interpretation of a Latin or Greek author implies a regular commentary, including both the lower and higher criticism, to be given upon the spot without previous study; that written exercises, both in Latin and Greek, are also to be given in, the former of which is to serve as a specimen of their Latin style; and that these are to be made on subjects given out at the moment, and written without the aid of books, while locked up in a solitary apartment. It is circumstances like these, that serve to test the radical and accurate scholarship of the pupil; far more indeed than to have gone over twice the quantity of ground in the same period of time.

We turn now more particularly and exclusively to the students of theology, already matriculated, and thus become regular members of the university. They have now chosen their future career; they are entering upon a course of professional study, which is to give a character and colouring to their whole future lives; for the instances are in Germany exceedingly rare, where a young man passes from the study of one of the professions to that of another. The chief reason of this is, the long and laborious preparation required to enter upon any professional career; and the fact, that in changing one's profession, all preparatory study is in a great measure rendered useless, while he has to begin *de novo* a course of three years' labour. But in thus entering upon a course of theological professional study, in order to become the teachers of the Christian religion, there is this obvious and striking deficiency running through the whole system of the German universities and churches, that the students are never questioned in regard to their *motives* in thus devoting themselves to the sacred office, nor in any shape examined as to their personal piety, nor in respect to their belief in a revelation, or even in the existence of a God. It is enough that they have been baptized and confirmed, and that they are free from the imputation of crime or open immorality. That they drink to excess, or gamble, or fight duels, or *renown* in every shape, is never brought up against them, unless such things have become the

subject of open and scandalous notoriety. That extreme cases like these are rare, is matter of gratitude ; that they can exist at all, or that the great body of theological students may be, and often are, men destitute of any personal religion, and of any regard to the sacred profession which they have assumed, further than as it affords a means of reputation and honourable subsistence, is greatly to be deplored. This state of things, however, is not peculiar to Germany. Indeed, it is almost a necessary consequence of the so called union of church and state ; an union which in protestant countries has ever consisted in the entire subserviency of the church to the state ; and in its dependence upon worldly-minded rulers for its support, and by consequence for its internal arrangement and constitution. While professing to establish religion and the church of Christ on a sure and permanent basis, the civil power has always taken care to assume the direction and control over the church ; and to make that to be the true religion, and that to be the constitution of the church, which should best comport with its own views of expediency, and with its own safety and permanency. This is an obvious and necessary conclusion from the history of every protestant state, which has undertaken to support the church by the arm of civil power. That the Romish church forms any exception to this remark, arises from the fact that it has itself a head, who claims pre-eminence and sovereignty above all other sovereigns ; and even in countries where this claim is not acknowledged, as heretofore in France, the church has yet formed a body separate from the body politic, and by its wealth and influence and power has contrived, when not resisted and overthrown by the interposition of the people, to render the government subservient to its designs. The princes of this world, alas ! and its less princely rulers too, are most frequently men without religion themselves, and therefore have respect to it only in reference to its general influence on the welfare of their states, or the security of their own power. Woe to the church that is subject to such a head ; that must receive its constitution and its ordinances and its ministers by the appointment

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of such an authority! The churches of Germany are mostly in this predicament, and teachers of religion are trained up for them, of whom it is not even asked, whether they believe in that religion which they profess to teach. The church of England is in this predicament, modified only by the limited authority of the English monarch; and how many of her clergy are men of a mere worldly spirit and even dissipated character! Let then American Christians rejoice, that the churches are here thrown back upon their primitive foundation, the hearts and affections of the followers of Christ; that they neither receive nor claim support from the civil power, any further than it becomes the government of every Christian country to provide against open violations of public order and religion. So much as this is demanded of every government bearing the name of Christian; not by any church, nor in support of any particular church, but in order that it may correspond with the very elements of Christian society.

In regard to the studies pursued by theological students at the universities,* they not only have the privilege of attending lectures on such other branches as they may choose, but are also expected and required to continue their attention to, and make further progress in, the studies of the philosophical department or faculty of letters. Every student of theology, therefore, is also inscribed in this faculty; and in addition to his theological studies, is required to attend lectures on logic, metaphysics, ethics or moral philosophy, and the philosophy of religion; by which last is understood, the philosophical exhibition of the eternal and universal ideas which lie at the foundation of every particular religion, and the examination of the religious tendencies and propensities of our nature. In addition to these, it is not unusual for the students of theology to pursue classical philology and li-

* In the remarks which follow, the writer has reference principally to the universities of Prussia. The same may be applied however, in most respects, to all the other protestant universities of Germany.

terature to a very considerable extent; or to attend lectures on history, or on one or more of the natural sciences. Indeed, the means are furnished, and young men are invited, to extend their researches into the whole field of ancient and modern literature, and to wander at will throughout the wide kingdom of science and nature.

The regular *Brodcollegia*, or courses of lectures necessary to be heard in order to sustain the future examinations, and to be regarded as qualified to enter upon the sacred office, are usually classed under three heads, viz. such as are *propaedeutical* or introductory, such as are theoretical, and such as are practical.

The propaedeutical lectures comprise the so called theological *encyclopaedia*, introductions to the Old and New Testament, and hermeneutics. These, of course, are all preparatory studies. The course on encyclopaedia professes to present to the student, a survey of the *whole circle of theological learning*. It is also called *Hodegetik*,* from ἡδηγεῖν to lead the way, and then includes under it, 1. *Encyclopaedia*† in the stricter sense, or an *objective* exhibition of the nature, character, and condition of the science to be taught, (in this case theology;) of the subdivisions of the science into different departments or *disciplines*, and the character of each of these; and of the relation which each particular discipline bears to the whole. 2. It includes also *Methodology*‡ or the proper method of study, which is the *subjective* part of this introductory course, and presupposes the encyclopaedia or objective part. Its business is, first,

* [Hodegetics, from ἡδηγεῖν, means preparatory instruction or directions for entering on the study of any science.] Ed.

† [Theological Encyclopedia is the circle of theological sciences, or a more theoretical survey and enumeration of them.] Ed.

‡ [Methodology consists in shewing how the study of theology must in general be arranged and pursued; in what order and succession the lectures may most appropriately be heard; in what connection with each other and with preparatory and auxiliary studies and sciences they may best be taken up; and how they may best be aided and sustained by private diligence and various exercises.] Ed.

to shew what are the necessary qualifications in those who devote themselves to the study of a science, and to point out the hinderances which lie in their path ; secondly, to shew in what particular way the different branches or departments of the science may best be studied ; and this is shewn from the nature of the science itself. The utility of an introductory course like this, in the study of theology, cannot be called in question. The student thereby obtains a clear idea of the object of his studies ; and by knowing definitely the relations which the different departments bear to each other, and to the science considered as a whole, he is enabled to pursue them in a proper order, and thus acquire a knowledge of them with greater ease to himself. How few are the students of theology, who, on first entering upon their career, have any adequate conceptions of the wide field that lies before them ! The object of such a course of lectures is, to spread before them a map or plan of this field ; to mark out its subdivisions with all their metes and bounds ; and to accompany this map with a description of the various roads and paths, by which they are to arrive at the different parts of the field ; of the obstacles to be avoided or encountered, and the best means of overcoming them ; and of the preparations and the implements which the traveller must take along with him. This is a topic to which, no doubt, more attention might profitably be paid in the theological seminaries of our own country. Indeed, this introductory study is in Germany considered so important in theology, that provision is made in every university for such a course in each semester ; and it is always the first object of the student's attention. With this course of lectures is also usually connected a synopsis of the *literature* of theology ; or a list of the best books in the several departments, with a brief account and character of each.

The other propaedeutical courses, viz. introductions to the Old and New Testament, and hermeneutics, are also necessarily preparatory in their nature. In order properly to understand, in their full force and extent, the truths of the Bible, which are the foundation of all theo-

logy, we ought to be acquainted with the history and character and condition of the sacred books in which they are contained; we must know not only the general principles on which they, like all other books, are to be interpreted, but also the peculiar circumstances and characteristics which serve in any way to throw light upon and affect their particular interpretation. These are therefore subjects to which an early attention is always given; although there is less regularity in this respect, than in regard to the general subject of *encyclopaedia*. One of the most celebrated introductory courses is that of Gesenius on the Old Testament, which never fails to draw a crowd of hearers sufficient to fill his large *auditorium* almost to suffocation.

The regular courses of *theoretical** lectures are those on the exegesis of the Old and New Testament, and archaeology of the Scriptures; systematic and symbolic theology, and ethics; the history of doctrines, ecclesiastical history and antiquities. In some of the universities, as at Halle, there are given regular courses of exegetical lectures on the whole of the New Testament, which extend through two years. Such were formerly the lectures of Knapp, of which the substance is said to have been published in the *Exegetisches Handbuch*, Leips. 1799 ff. The same course is also pursued by Wegscheider and Thilo, who always read at the same hour, but on different parts of the New Testament. Tholuck has likewise recently commenced upon the same plan. The first semester is usually occupied with the Gospels of Matthew, Mark, and Luke, which are read according to a harmony; the second semester is

* [Christian Theology, regarded as a science, comprises two grand divisions, viz. *Theoretical* and *Practical* theology. The *former* regards Christianity in and by itself, as a higher and nobler phenomenon in the life of man, and aims to unfold it in its origin, in its essential nature, and in its various modifications and historical character. The *latter* instructs the future teacher of religion how to proceed in communicating to others, in the best possible manner, the knowledge and conviction which he himself has acquired, and also that higher spiritual life which these are adapted to awaken.]

filled out with the Gospel of John and the Acts of the Apostles ; while the Epistles and the Apocalypse are divided between the semesters of the second year. Specimens of the general mode of lecturing on the New Testament may be seen in the *Handbuch* above mentioned ; and also in the Commentaries of Flatt on the Epistles, which were published without alteration from his manuscript lectures. In other universities, as at Berlin, the courses on the New Testament are less regular and general, and include only particular books. Each professor, who chooses to read on the New Testament, selects such books as he prefers, and reads upon them in a regular order, or not, as he pleases. Neander, for instance, lectures upon the Gospels of Matthew and of John, and has at times taken up most or all of the Epistles ; but of late years, he confines himself to these Gospels and to the larger Epistles of Paul.

The same is true in regard to the exegesis of the Old Testament. It would here be obviously impossible to deliver lectures on the whole of this part of the Bible ; and therefore every professor selects the particular ground which he will occupy. Some make for themselves a stated course ; while others vary their lectures at will. Gesenius has adopted the former method, and his course covers two years. It consists of lectures on the books of Genesis, Isaiah, Psalms, and Job. The lectures on Isaiah are mostly nothing but an abstract of his printed commentary, condensed into a much narrower compass, and with little or no illustration from the cognate dialects. It may seem strange that these lectures should be fully attended, when it is so easy to obtain the book, and thus possess a complete commentary ; but the poverty of many of the students, the desire of possessing an epitome including the results of the professor's newest investigations, the preference which is felt for instruction *viva voce*, and perhaps fashion too in some degree, conspire to render the lecture-room not less crowded at these, than at the other lectures of the same professor. His course on the Psalms bears a very general resemblance to the Commentary of De Wette ; exhibiting, however, somewhat less of taste and

more of philology. The difficulties of the book of Genesis vanish with him entirely ; inasmuch as he considers this book merely as a collection of *μῦθοι*, compiled, as well as the rest of the Pentateuch, at a period not earlier than the time of the Jewish kings, and on a level, as to authority, with the fables of other oriental nations in regard to the creation and early history of our race. In Halle there is no orthodox evangelical lecturer on any part of the Old Testament. In Berlin, Hengstenberg reads upon the prophecies respecting the Messiah, and some other portions ; but his lectures are thinly attended. Indeed the study of Hebrew and oriental literature in general, excites little comparative attention at Berlin. In Halle much more time and attention are devoted to both. Gesenius gives occasionally lectures on the elements of Chaldee, Syriac, and Arabic ; and there are also private teachers in these and the other oriental tongues.

The lectures on *systematic* theology * are exceedingly various in their character, according to the point of view under which the professor chooses to consider his subject. Sometimes it is simply a *scientific* theology, whose principles are deduced from, and founded upon reason alone. At other times it is only *biblical* theology, or the doctrines of the Bible arranged in a systematic form.—Sometimes again both of these modes are combined, and the religion of reason and nature is extended or modified by the precepts of the Scriptures ; or the truths of the Bible are supported and illustrated by the principles of reason. At one time the doctrines are exhibited and discussed only in their present form ; at another, the history of them is interwoven with the discussion. The greater part of the works on systematic theology published in Germany, have first been read as lectures in the universities ; and afford therefore a fair specimen of the mode of lecturing

* This is the systematic arrangement and exhibition of the doctrines contained in the holy records, as ascertained by means of exegesis. Since now these doctrines appertain partly to Christian *faith*, and partly to Christian *life*, the whole is subdivided into *dogmatics*, or the doctrines relating to faith, and *ethics* or *morals*, i. e. the doctrines relating to practice.

on these subjects. Such are the works of Twesten, Hahn, Nitzsch, Schleiermacher, De Wette, Marheinecke, Wegscheider, &c. to mention only those of living authors. The excellent work of Knapp, also, which is now in the progress of translation in this country, was published without alteration from his manuscript course. All these lectures properly regard the general system of theological doctrines, without reference to them as held by any particular church. The lectures on *Symbolik*, on the contrary, or on the symbols or confessions of the various churches, are devoted to the exhibition of the doctrines as held by these churches; and as the history of creeds and confessions is of course brought into view, it is obvious that the whole subject is thus thrown open for discussion.

The *Dogmengeschichte* or history of doctrines, as has been before remarked, very commonly also forms a part of the regular lectures on ecclesiastical history. Indeed, both this and the history of creeds and confessions form such an integral part of this general history, that they cannot be passed over in treating of the latter without some notice; although it depends altogether on the plan of the lecturer, to what extent they shall be rendered prominent. The courses of lectures on ecclesiastical history itself commonly occupy at least two semesters, and are given six times a week. This is usually a very popular subject, and is treated fully, and generally in an interesting manner. In Halle, there are no less than four courses given, viz. by Gesenius, Thilo, Ullmann, and Guericke; and also another course on antiquities by the younger Niemeyer. These are so arranged, as that no two professors read at the same time on the same part of the course; and Gesenius and Thilo take the alternate years. In Berlin, Neander has no one to compete with him in a general course; although courses on particular periods or subjects are occasionally given by other instructors. The same is the case with Gieseler at Bonn. The text of the published Manual of the latter professor, is a specimen of his own manner of lecturing, and also of that of Gesenius.*

* Prof. Gieseler was formerly the pupil and fiscal of Gesenius;
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The manner of Neander corresponds to that of his great work now in the course of publication; though his lectures, of course, are much less copious. The system of lecturing which is common to all, is to divide the whole ground of ecclesiastical history into epochs or periods; and then under each to give separately, first, the *external* history of the church, or a general narrative of events, with reference to its external relations; and then the *internal* history, or the events occurring within the church, such as its internal regulations, disputes, councils, the history of doctrine, and ecclesiastical antiquities properly so called, or views of the manners and customs of the early Christians, their modes of worship, literature, &c.—Not unfrequently also, separate courses of lectures are given on some one of these particular subjects.

The lectures on the *practical* part of theology * comprise pastoral theology, or the proper mode of exercising the pastoral office; *Katechetik*, or the method of imparting religious instruction to children, as by catechisms; *Homiletik*, or the art of preaching; and *Liturgik*, or the mode of conducting public worship. All these departments

and the text of the earlier part of his Manual, bears a strong resemblance to the lectures of the latter.

* *Practical Theology* embraces, in accordance with its great aim, all the branches of theological science which relate to *Preaching*. The object of them all is, to point out the multiplied ways and forms, in which the truths of the Christian religion may be most certainly and effectually brought home to, and appropriated by, the hearts of men, according to their various capacities and temperaments respectively. This department is therefore often called *Pastoral Theology*; although, according to the prevailing terminology, this last is still treated as a particular branch of practical theology.

Pastoral Theology (Instruction in Pastoral Wisdom, i. e. Pastoral Science) points out in what manner the clergyman, as a pastor having the care of souls, should order his conduct in all his relations to the people under his charge; and also, as a servant of the church and state, towards those who are set over him. Hence, also, the science of Pastoral Theology includes at least some degree of attention to the *Ecclesiastical or Canon Law*; or, if not to this general subject, (which is usually taught by the Professors of Law,) yet to that particular branch of it which is recognized as valid in the church, country, or province, where the individual is to spend his days

are taught scientifically and theoretically ; and also practically so far as opportunity is afforded. The first however obviously admits of little or no practical illustration at a university ; although the professors who teach these branches, are at the same time usually pastors. At any rate, pastoral theology in its proper sense, as consisting in the exercise of the pastoral office *out* of the church, is less understood, or at least far less practised, than in this country. In catechetics and homiletics, both the theory and practice are illustrated and accompanied by the requisite historical notices. The subject of liturgies is rather historical than otherwise ; and has assumed of late, at least in Prussia, a high degree of interest, in consequence of the introduction of a new liturgy by the government, in doing which the king himself took a very active part.

Such are in general the regular courses of instruction at the German universities, in the several departments of theological study. Besides these there are also the *seminaries* mentioned above (p. 28), in which the professors meet the students on a more familiar footing, and the exercises are conducted more in the manner of conversation. The theological *Seminarium* in the university of Halle, which may be taken as a sample of the rest, consists of five divisions, viz. in the exegesis of the Old Testament under the guidance of Gesenius ; that of the New Testament under Wegscheider ; in church history under Thilo ; in systematic theology under Tholuck ; and in homiletics under Marks ; with which last are connected catechetical exercises under Wagnitz. The exercises in the division under Gesenius consists sometimes in writing Hebrew, which the professor corrects ; at other times in discussions upon Hebrew grammar and kindred topics, in which all may take part ; and again in the interpretation of particular books of the Old Testament, in which the pupils are also called upon. These meetings are held once a week, and are interesting and instructive. You have here the first Hebrew scholar of the day, just as in Paris at the recitations of De Sacy you have the first Arabic scholar of the age, placing himself in a manner at your disposal, and ready to answer your questions and re-

solve all your difficulties. This is a very pleasing feature in the arrangements for public instruction, both in Germany and France. The same remarks hold true, *mutatis mutandis*, in regard to the other divisions of the *Seminarium*. Besides these, the students often unite among themselves in companies of five or six, to review together the lectures which they have written down; and individual professors also hold private recitations and exercises, in the several branches to which the students have already attended. These last are sometimes partly in the nature of private examinations; at others, they are repetitions of preceding lectures; and sometimes also they consist of regular private instruction on the same or kindred topics.*

* The following abstract of the *Lektionsblatt* or Catalogue of Lectures of the University of Halle for the summer semester from May 3 to Sept. 18, 1830, will shew the nature of the studies pursued. It should however be borne in mind, that as several of the professors read stated courses of two years' continuance, the catalogue of any other semester would present, in many respects, a different list of subjects in all the departments. This abstract includes only the faculty of theology and a part of that of philosophy.

THEOLOGY.

Theological Encyclopaedia and Methodology, *Niemeyer*.—Encyclopaedia and theological literature, *Guerike*.—Hermeneutics, *Weber* and *Niemeyer*.

Biblical Archaeology of the Old and New Testament, *Gesenius*.—Historical and critical Introduction to the Old Testament, *Guerike*.—Books of the Old Testament to be explained: The first chapters of Genesis by *Stange*.—Job, *Wahl*.—The Psalms grammatically, *Schott*, Priv. Teacher.—Isaiah, *Gesenius*.—Minor Prophets, *Rödiger*.—Biblical Theology of the Old Testament, *Rödiger*.—Prophecies respecting the Messiah, *Fritzsche*.—Historical critical Introduction to the New Testament, *Ullmann*.—In the New Testament to be explained: The Gospels of Matthew, Mark, and Luke, *Tholuck*.—The same Gospels, *Wegscheider*.—Epistles to Timothy and Titus, and also those to the Romans and Hebrews, *Thilo*.—Exegetical and homiletical Lectures on the Epistle to the Philippians by *Marks*.—History of Christ's Passion and Resurrection, *Tholuck* and *Wegscheider*.

General History of Doctrines, *Wegscheider* and *Ullmann*.—Systematic Theology, *Weber*.—The same in connection with the History of particular doctrines, *Wegscheider*, after his *Institutiones*, &c. The same in connection with a view of the History of Doctrines,

Such is the general outline of the course of theological studies pursued in the German universities ; vary-

Tholuck.—On the symbolical Books of the Evangelical Church, beginning with the Augsburg Confession, *Guerike*.

General History of Religion and the Church to the time of Gregory VII., *Thilo*.—The same from Gregory VII. to the present time, *Guerike*.—Lives and Writings of the Apostolical Fathers, *Ullmann*.—History of the Reformation, *Lorentz*, P. T.

Practical Theology, *Franke*, P. T.—Homiletics and their History, *Marks*.—The Preaching of distinguished Pulpit Orators of our own and other times, *Wagnitz*.—Catechetics, *Wagnitz* and *Franke*, P. T.—Catechetical Exercises by *Weber*.—Popular Dogmatics, *Fritzsche*.

In the royal theological *Seminarium*, the exercises in the Exegesis of the Old Testament to be directed by *Gesenius*, and to consist in the Interpretation of the Proverbs of Solomon ; those in the Exegesis of the New Testament, by *Wegscheider* ; those in the division of Ecclesiastical History, by *Thilo* ; in the division of Dogmatics, by *Tholuck* ; in that of Homiletics and Liturgics, by *Marks* ; *Wagnitz* to direct the catechetical exercises of the latter division.

Examinations on Systematic Theology to be held by *Weber* and *Fritzsche* ; and in the History of Religion and the Church, by *Guerike*.—A *Repetitorium* on the Introduction to the Old and New Testament offered by *Rödiger*.—Exercises in the Interpretation of the New Testament offered by *Fritzsche*.

Omitting here the faculties of jurisprudence and medicine, and passing over in that of philosophy the departments of philosophy proper and pedagogics, (in which eleven courses of lectures are announced,) mathematics, the natural sciences, (in which botanical lectures and excursions are announced by the celebrated *Sprengel*,) and political economy, we adduce only the divisions of history and philology.

HISTORICAL SCIENCES.

Universal History, *Leo*.—Ancient Universal History, *Voigtel*.—Geography of the Ancients, and their writings on this subject, *Lange*.—General Mythology, *Rosenkranz*, P. T.—The religious and domestic Life of the Greeks, *Meier*.—History of the middle ages, and of modern times, *Pfaff*, P. T.—History of the Carolingian race, *Lorentz*, P. T.—History of the Crusades, *Pfaff*.—History of the Reformation, *Lorentz*.—History of the Seven years' war, *von Hoyer*, P. T.—Modern History, from 1786 to 1818, *Leo*.—Prussian Statistics, *Voigtel*.

Exercises in the Historical Society to be directed by Prof. *Voigtel*.

PHILOLOGY.

I. CLASSICAL. History of Eloquence among the Greeks and

ing indeed in all according to the taste and character and convenience of the different professors, but yet com-

Romans, *Raabe*.—History of Greek Poetry, *Ritschl*, P. T.—Greek writers to be explained: Pindar's Olympic Odes, *Lange*.—Philoctetus of Sophocles, *Förtsch*, P. T.—Antigone of Sophocles or Hecuba of Euripides, *Stäger*, P. T.—Hymn of Cleanthes, *Lange*.—Plato's Symposium and Phaedon, *Bernhardy*.—Aristotle's Poetics, *Schütz*.—Theophrastus' Characteristics, *Meier*.

History of Roman Literature, *Bernhardy*.—Works of Roman writers to be explained: Plautus' *Miles gloriosus* by *Ritschl*, P. T.—Odes of Horace, *Raabe* and *Bernhardy*.—Cicero *de Oratore* by *Schütz*.—Cicero's Orations on private rights, with an introduction on the civil process of the Romans in the time of the Republic, *Meier*.—Cicero *de Natura Deorum* by *Förtsch*, P. T.—Seneca's Physical Investigations, *Schweigger*.

In the royal philological *Seminarium*, the members to be instructed in Interpretation, Disputation, and the writing of Latin, by Professors *Schütz*, *Meier*, and *Bernhardy*.—Exercises in the speaking and writing of Latin, offered by Prof. *Lange* and by *Förtsch* and *Ritschl*.

2. ORIENTAL. History of Oriental Literature, *Wahl*.—Oriental Palaeography, *Gesenius*.—Hebrew Grammar, *Schott*, P. T.—Arabic Grammar, with interpretation of selections from De Sacy's Chrestomathy, *Schott*.—Lectures on the Shemitish Dialects, or on the Persian, Coptic, and Sanscrit Languages, offered by *Wahl*. (This offer is rarely accepted.)—Sanskrit Grammar, with interpretation of the Episode of the Mahâ Bhârata, *Rödiger*.—Elements of the Chinese Language, *Schott*.

Instruction in the modern European languages is also offered.

In Berlin, during the same summer (1830), the principal lectures announced by the theological faculty, were the following: Theological Encyclopaedia, *Marheinecke*.—Introduction to the Old Testament, *Hengstenberg*.—Sections of Genesis, *Bellermann*.—The Psalms, *Hengstenberg*.—Isaiah, as also Hebrew Grammar and the minor Prophets, *Uhlemann*, P. T.—Job, *Benary*, P. T.—Gospel of Matthew, *Neander*.—Gospels of Matthew, Mark, and Luke, in De Wette's and Lücke's Harmony, *von Gerlach*, P. T.—Epistle to the Romans, *Hengstenberg*.—Ecclesiastical History till Gregory I., *Rheinwald*.—Later History of the Church, *Neander*.—Life, theological character, and writings of the distinguished teachers of the ancient church, *Neander*.—Systematic Theology, after his work: 'Der christliche Glaube,' *Schleiermacher*.—Theological Moral, *Marheinecke*.—Catechetics and Pastoral Theology, *Strauss*; as also the History of Homiletics, and homiletical exercises.

Under the head of *History* and *Geography*, the following are a few of the lectures announced. Chronology of the Egyptians, Greeks, Romans, Hebrews, Christians, Arabs, and Persians, *Ideler*.

ing in all the universities to the grand result of propædætical, theoretical, and practical lectures, on all the various departments of theology. The order in which these lectures are to be attended, has hitherto been left entirely to the discretion of the pupil; the necessity of attending them at all lies not in any requisition of the university, but in the circumstance that such an attendance is demanded by the government in order for admission to a future examination. For this end, each student is required to have his *Anmeldungsbogen*, or sheet on which the different courses that he attends are entered and signed by the different professors, with a note also of the degree of attendance. In regard to the order of study too, some arrangements have of late been introduced, especially at the university of Berlin, by which it is in some degree regulated, and the students prevented from commencing, as was sometimes done, with the practical part of theology, before they had paid any attention to the preparatory and theoretical parts. In Halle, there is also something of the same kind; but it exists there only in the shape of a recommendation from the theological faculty. As a general rule, *encyclopaedia* is everywhere the first course; as to the other courses there can be no definite arrangement, inasmuch as the times at which they are read are irregular, and depend solely on the convenience of the professor.

—Ethnography and Geography of Asia, *C. Ritter*.—Geography of ancient Latium, *C. Ritter*.

In *Philology* are the following among many others. History of Greek Literature, *Böckh*.—Elements of Latin and Greek, *Bekker*.—Hebrew and Arabic Grammar, *Benary*.—Elements of Arabic Grammar, *Hengstenberg*.—Comparative Grammar of the Sanscrit, Greek, Latin, and Gothic Languages, *Bopp*.—Antigone and Oedipus Colon. of Sophocles, *Böckh*.—Isocrates, *Bekker*.—Satires of Horace, *Zumpt*.—Ardshuna's Journey, and Hidimba's Death, Episodes of the Mahâ-Bhârata, *Bopp*.

In Berlin the royal theological *Seminarium* has only the divisions of Exegesis under *Hengstenberg*, and of the History of the Church and of Doctrines under *Neander* and *Marheinecke*.—That the *Seminarium* at Halle is more frequented, arises probably chiefly from the fact, that there are usually twice as many theological students at Halle, as at Berlin.

Further than the obligations which necessarily spring out of the requisitions hitherto enumerated, the universities have, or appear to have, no direct control over the time of the students, nor over the apportionment of that time, nor over their conduct and actions, so long as they commit no gross violations of law or public decorum. This is true in general, in regard to students of every class. The only further requisition made in Prussia on students of theology, as such, has reference to their future employment as teachers and ministers of God's word, and is simply this, that they shall attend public worship, and go to the communion a certain number of times every year. This is a new regulation; and it may be regarded as an indication of the state of feeling among the great body of theological students, that this requisition was generally viewed by them as an arbitrary infringement on their liberty of action, and as imposing upon them an additional burden "grievous to be borne." As a proof of the improving state of morals and discipline among the theological students of Halle, it is mentioned in a recent public report on the state of that university, that the theologians are more regular in their attendance on the public religious services. In this neglect of public worship, however, the students do but follow out the example of most of the professors, as well those of theology as others, who, generally speaking, are rarely seen within the walls of a church. And it is no wonder, when these, the teachers and the future preachers of the word, thus fail in the performance of the public duties of religion, that the practice of frequenting the house of God should have fallen into desuetude among the people at large. But to this topic we shall probably return, at a future opportunity.

These remarks refer, of course, to the great body of theological students; and more particularly to those of Halle, which after all is the great theological school of Germany. There are however many exceptions, and many persons to whom remarks like the foregoing cannot apply. There are not unfrequently pious and gifted individuals among the students, who pursue the course of

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theological studies with the purest ardour, in order to become faithful and able and devoted ministers of the word of God. Their object is not, as in most cases, merely to study a profession with a view to future subsistence ; but they take every opportunity to improve themselves in all that may the better qualify them to fill the sacred office. It is this class of students mostly, who make use of the privilege of *preaching*, which is permitted to regular theological students at the university. This however can take place only with the special license of the Superintendent of the place, on each and every occasion ; and the sermon to be delivered must also have been examined and approved by him. The preaching of the students is usually, of course, confined to the neighbouring villages, or to the less frequented services in the city churches, as in the afternoon of Sunday, or the early service of that day at 6 o'clock in the morning.

In regard to the intercourse between the students of theology and the professors, the same evil exists that was alluded to at p. 59, in respect to all students. The professors, generally speaking, know nothing of their pupils except in the lecture room ; they take no personal interest in their general character, or deportment, or progress in their studies, nor in their mental and moral development. Whether they improve their time or waste it ; whether they are pious men, or dissipated ; whether they are likely to prove " burning and shining lights in the church," or to become " wolves in sheep's clothing," and vex and desolate the community of Christians ; are all questions of entire indifference in the eyes, or at least in the practice, of most theological professors. A few in Berlin and Halle, and in other universities, have adopted a different course ; and the result has hitherto been auspicious. This however is no official duty ; and indeed, so far as this is concerned, the moral and religious cultivation of the students is left wholly unprovided for. They unite sometimes, indeed, for this purpose among themselves ; but these unions are for the most part regarded with an evil eye by those in authority ; and even those professors who draw around them

a little cluster of students for the purpose of religious improvement, and especially of private devotion, have not always escaped notice and censure. An allusion has already been made to a case of this sort, in the account formerly given of Göttingen. It is to the honour of the Prussian government, that it rather encourages this course of proceeding in the university of Berlin; though its example has not been sufficient to restrain the magistracy of some other cities, from wishing to adopt an opposite policy.

There remains nothing further to remark in reference to the residence of theological students at the universities, but that in Prussia they have been required for some years past to attend lectures also on *Pädagogik*, or the science of education and instruction; inasmuch as the superintendence of the common schools is connected with the exercise of the pastoral office. For this object there exists also a pedagogical *Seminarium* in each of the Prussian universities; in which appropriate exercises are practised by the students.

The required term of residence at a university for ordinary students of theology, is three years. One of these, however, may be spent at the university of any other German state; the requisite testimonials being produced of regular attendance and of good conduct. But in Prussia it is not uncommon for the students of other universities, whose means will afford it, to prefer spending a year at Berlin. Indeed, other things being equal, this would be a matter of preference with students of all classes; since it seems to be generally understood, that the choice of Berlin is rather viewed with favour by the government, and a residence there gives a young man a greater chance of being noticed by those in authority, and thus affords him a better prospect of future employment.*

* In Würtemberg there is a certain class of theological students who are required to reside *five* years at the university. This however arises from a peculiar institution in that kingdom, which takes the pupils at the age of about 12 years, and educates them throughout at the expense of the government. The boys of the greatest

Thus far our attention has been occupied with the course of studies pursued by theological students during their residence at a university. It is a course fully and completely professional ; as entirely so as the course at any of our theological seminaries ; and these therefore, and not our colleges, are the institutions of our own country, between which and the German universities a comparison can in any way be instituted. The object of both is the same, viz. professional study. The subjects of study are more or less the same ; the great difference in this respect being only in the mode and extent of instruction. But in another respect the difference is deep and fundamental. *There*, to use the common distinction, the whole system of obligation and discipline regards only the head ; *here* it refers also to the heart. There, if a student avoid open immoralities, he may become by mere study a distinguished theologian ; here, in order to be regarded as a theologian, he must as yet be also regarded as a sincere Christian ; as one who considers his profession not as a means of subsistence, but has embraced it from high and holy motives of duty towards God and towards his fellow-men. This is an association of ideas so utterly unknown in Ger-

promise in the gymnasia are selected, and have the offer of being thus supported, if they will adopt the clerical profession. They are then sent to the *primary* theological schools ; of which there are *four* in the kingdom, three protestant and one catholic. Here they remain four years, and go through a regular and fixed course of study. They are then transferred to the university of Tübingen, where they remain five years more ; two of which, however, it is believed, are mostly devoted to a preparatory course, as in the university of Copenhagen. This *seminary*, as it is called, provides for one hundred protestants, and as many catholics. The government furnishes them with board and lodging ; and thus gives them their whole support and instruction for nine years in all ; but in return for this the pupils yield their personal liberty and wishes, and become entirely subservient to the will of the government, and must do all its bidding, whatever their own tastes or circumstances may be. In 1829, out of 222 protestant theological students at Tübingen, 97 were in the seminary and lived in commons, and 125 in the city. Of catholics there were 117 in commons, and 54 in the city ; in all 171. The whole annual expense of these institutions is between 90,000 and 100,000 florins, or more than £7600.

many, that when it was at several times mentioned to pious and distinguished men there, that in this country the term theologian had hitherto always implied the exhibition of personal religion and vital piety, they expressed the utmost surprise and delight at a state of things so congenial to their feelings, and yet so different from any thing in their own country, or, as they had supposed, in any other part of the world. May God preserve our churches and our schools from such a state of things, as shall ever give occasion for a separation of these ideas, either in language or in practice!

PART III.

EXAMINATIONS, MINISTERIAL STANDING, &c.

We have already accompanied the German theological student to the close of his regular course of study; to the time when, having resided three years at a university, he is permitted by the government to offer himself for examination, with a view to enter upon the practice of the sacred profession as a teacher or a minister of the Gospel. We now propose to follow him through his various examinations and trials, until he is established in his calling.

At the close of his university career, there are two courses open before the student of theology, in order to arrive at a future station in the church; one of which however can be adopted but by few, while the other is open to all. He may either take the regular degrees in theology at the university, and become a teacher or professor there; (which also gives him the right of becoming a preacher;) or he may submit himself to the usual examinations before a commission or consistory, and thus directly enter the church. We will first accompany those who take the former course.

It has already been stated, that all students of theology are also inscribed in the faculty of philosophy. In

connection with this, all those who wish to devote themselves to the business of theological teachers, and to become future professors in that department, usually, if not always, take the degree of Doctor in Philosophy, which is equivalent to our Master of Arts. This is granted after examination by the faculty, and after defending in public a Latin dissertation, or being expressly excused therefrom. This however does not yet qualify a person to become one of the *privatim docentes* in either faculty. In the philosophical he must, regularly, still hold another public disputation, if he wishes to become a teacher there; and in order to teach in the theological faculty, he must further take the degree of Licentiate of Theology. This is the lowest degree in theology, and is granted after examination by the theological faculty, and after maintaining a dispute in public. The examination for this degree, being by authority of the university and not of the government, is held by the faculty, and not by a commission or consistory, as is the case with those who are candidates for the pastoral office; but it embraces of course, in most respects, the same ground; with more particular reference perhaps to those branches, in which the candidate expects to teach. The examination also assumes a higher and more scientific character, in regard to those few who are to be scientific teachers, than with the many who become only pastors. The privileges, however, conferred by this degree are of a corresponding nature. The Licentiate of Theology is then qualified to read lectures, as a private teacher of theology in the universities, has the liberty of preaching, and should he wish to become a pastor, he stands on the same footing as those, who in the other course have passed two examinations. This degree is now never taken, except by those who thus wish to become teachers; the other course being after all less difficult, and perhaps more speedy.

The appointment of Professor *extraordinarius* makes the licentiate a permanent member of the university, and gives him a higher rank; but does not affect in any way his university degree. Indeed, the term *licentiate* is never employed as a title of address; while the title *doctor*

is very extensively given to those who have taken the degree of Doctor in Philosophy, without having been further promoted. But this also is laid aside, when the individual becomes professor; the latter title being of a higher value. As a general rule, the ordinary theological professors are also Doctors of Theology; though this is not always the case. This has now become a merely honorary degree; and is usually bestowed by the universities on distinguished individuals, as a mark of favour and respect. It may also be regularly taken by those who apply for it; but at an expense of about two hundred rix dollars. The privileges annexed to this degree are not yet obsolete. The title of Doctor of Theology supersedes that of Professor of any kind. This degree also entitles the individual to receive ordination, if he desires it, without further examination or delay; and is the highest degree or rank conferred by the universities. The government, however, can and do bestow on theologians honorary titles, which are regarded as still higher. The most usual one is that of *Consistorialrath*, Counsellor or Assessor of the Consistory, a title with which is connected no right or privilege whatever, and which is merely a mark of favour on the part of the government. It is of precisely the same character as the title of D.D. with us, though somewhat higher in name. The same is the case with the title *Oberconsistorialrath*, which is a still higher degree of nominal honour.

The course above described, has been followed by most of the distinguished theological teachers of the day. Tholuck, for instance, both while private teacher and Professor extraordinary at Berlin, was Licentiate of Theology. On being appointed *ordinarius* at Halle, the university of Berlin created him Doctor of Theology. In 1828, when about to set off for Rome as chaplain of the Prussian embassy in that city, he applied for and received ordination at Merseburg, in his character of Doctor of Theology, without examination. In 1830, in consequence of his having declined an invitation to go as court preacher to Dresden, the government conferred on him the title of *Consistorialrath*, which is of course his present style of

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address. Gesenius received the same title, after declining his call to Göttingen in the place of Eichhorn.

But although these university degrees thus confer the right of preaching and of assuming the pastoral office, yet they by no means render this imperative upon those who receive them. In Berlin, Neander and Hengstenberg are not preachers, and have never entered the sacred desk, while Strauss and Schleiermacher and Marheinecke and others, are also regular pastors of churches in the city, and commonly preach once on every sabbath. In Halle, Marks and Tholuck are the university preachers, and officiate on the alternate Sundays ; while Marks is also the afternoon preacher in one of the city churches. Niemeyer used formerly to preach occasionally ; but Gesenius, Wegscheider, Ullmann, Thilo, and others, have never officiated as preachers, and, like Neander and Hengstenberg, are not even regarded as belonging to the clerical profession. In the subdivision of labour which prevails in theology, as in all the other sciences, they undertake to teach those branches which have not a direct bearing upon the practical applications of theology ; for, as a general rule, the professors who teach homiletics and pastoral theology, are themselves preachers. The result of the whole then is, that the government connects with the degrees conferred by the faculties of theology in the universities, the same rights and privileges in regard to preaching, as are bestowed by the consistories ; that all theological professors and instructors in the universities have therefore the right of acting in the pastoral office ; while the exercise of this right is left to their own discretion.

We return to the other and larger class of theological students, who take the more common course of entering upon the pastoral functions, not through the universities, but in the ordinary way prescribed by the government. This consists in an *examen pro candidatura* or *pro licentia concionandi*, which may take place before the consistory, or before a commission appointed for that purpose in the universities ; and an *examen pro ministerio*, after the interval of a year, which is held only by the consistory.

In regard to the first examination, the introductory proceedings are similar in their nature and object to those required in an examination before the faculty of philosophy, as detailed above. To each individual who applies for examination a theme or subject is assigned, on which he is expected to write a dissertation, which must be handed over to the examiners within the period of six weeks. After this, other subjects are assigned, on which the candidate must write upon the spot and under lock and key; as in the examinations of the gymnasia. At the same time he must hold a *catechisation*, and also deliver a sermon upon an appointed text. Then follows the oral examination, in which six of the candidates are ordinarily taken up at once. This covers of course all the ground of the several *Brodcollegia* heretofore described; and includes a particular examination on the exegesis of the Old and New Testaments; on systematical and symbolical theology, and ethics; on ecclesiastical and doctrinal history; and also on philosophy and theological literature. The more particular examination on the practical department, is commonly reserved for the trial before the consistory.

The degree of knowledge and acquirements exhibited by the candidates on examination, is marked by the different classes or standing to which they are assigned. These different degrees of merit are designated as follows; 1. Excellent; 2. Very good; 3. Good; 4. Moderate; 5. Deficient. This last, of course, confers no claim to any right or office; but it admits the candidate to another future trial. Those who stand in the first four classes, receive the *licentiam concionandi*; and are called *Candidates of Theology*; but they are not yet qualified to become pastors of churches.

That this is not a mere examination *pro forma*, is at once attested by the characters of the examiners, who are men of profound learning, either professors in the universities, or the most learned and distinguished of the clergy. It is also attested in Halle by the fact above mentioned, that in one year every sixth applicant was turned by on account of deficiency; and although there

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may have been in this case a more than ordinary strictness, yet the number thus rejected or put by, constitutes everywhere not a very small proportion of the whole. And this is the turning point of the young theologian's life. To this time he has been looking forward in all his previous toilsome studies; because if he fails here, he loses the fruit of all his anxious labours. If he cannot honourably sustain this examination; if, above all, he be once turned by and fail upon a second trial; his bread for life is taken away, his name as a scholar is dishonoured, and there is no part nor portion of his country whither he can retire and there regain his standing. Every avenue to his profession is for ever closed up to him; and he must either starve, or consent to get his bread in some other humbler calling, with a mark of disparagement stamped for ever on his brow. In these facts we see the secret of that almost universal and unremitted diligence, which forms so distinguishing a characteristic of the students of the German universities.

But in these examinations, rigorous and decisive as they are, there is one omission which strikes our feelings with surprise and grief. By this door enter all the pastors and teachers of the church; of that church, the object of which is to keep alive the pure and holy flame of the Christian religion, and to extend the boundaries of God's kingdom upon earth. But to those thus entering the question is never put, whether they have any regard for this kingdom of God; whether they have ever possessed the pure and holy flame of religious feeling; whether they are in any degree prompted to undertake this holy calling, from love to God or Christ, or to the souls of their fellow-men! The church, alas! is no longer at her own disposal, and cannot prove "the spirits of her prophets whether they be of God." She is but the slave of civil power; and all that she is at liberty to ask or know is, whether her prophets are regularly appointed by the king and his ministers. Not one question is ever asked as to their belief in a revelation, nor as to their personal motives in thus undertaking to be the ambassadors of God to man. When the shepherds are thus cho-

sen without any reference to their fidelity, are we to wonder that the flock should go astray and become widely scattered?

The second examination, or that *pro ministerio*, takes place before the consistory after the interval of a year. During this time the candidate is expected to have continued his theological studies, and to have made further progress, especially in the practical part of them. This is the object of more particular attention in this examination. In other respects it resembles the first, in the dissertations and sermon to be exhibited, in the closet labour, and in the oral examination on all the subjects above mentioned. Besides these, the candidate is also now examined in regard to his knowledge of pedagogics and the practical instruction and arrangement of schools. The standing or degree of merit of each candidate, is here marked by the same classification as before; and he may in like manner be put by for further preparation and trial. Those who receive the proper testimonials, are now qualified to assume the pastoral office whenever they please.

This interval of a year between the first and second examinations, is employed in various ways. The candidate of theology, as has been said above, is permitted to preach, but may not yet be chosen as the pastor of a church; a privilege to which he is entitled only after the second examination. Many pursue their studies during this interval at a university; others at their homes; and a very few sometimes in the theological seminary at Wittenberg. They are not, as a matter of course, bound to present themselves for the second examination precisely at the end of the year; the regulation is only that they cannot do it sooner. It is not unusual, therefore, to find candidates of theology acting as teachers for a time, in the gymnasias or in private families; although, as a general rule, they prefer to have first regularly completed all the requisite examinations.

After the second examination, as is said above, the candidate becomes *wahlfähig*, or capable of being chosen to the pastoral office and to the immediate charge of a church and people. He is now, in this respect, on a foot-

ing with a candidate in our country, after he has received license. The *choice* itself, however, is usually very different from any thing that exists among us ; and is also different in the various parts of Germany. In some few instances indeed, particularly in Westphalia, the churches themselves have the right of choosing their own pastor, much in the same way as with us ; but their candidate must still be approved and accepted by the government, acting through the consistory. In other instances, the pastor is appointed by the owner or lord of the village, who in such cases has commonly the right of property in the whole village and in the church itself ; and this appointment must also be sanctioned in like manner by the consistory, while the people of the parish have no voice whatever in the matter. But the fact in a great majority of instances, is, that the gift of the livings depends immediately on the government itself, and is bestowed just like any other office of state, through the ministry of a subordinate department, which in this case are the consistories. Each of these has charge of a certain province or district ; and knows of course every vacancy which arises within its jurisdiction. They know also personally every candidate who is under their charge ; and it is not rare that a candidate, and especially a favoured one, has his choice between several parishes. Having received his appointment, in any of the above ways, he may if he pleases, after the second examination, be immediately inducted.

But if the candidate, instead of thus entering at once upon the duties of a pastor, prefers to turn aside for a time, and either make further progress in his own studies, or devote himself to public instruction, (in order for which he must undergo an *examen pro schola*,) or take upon him the office of tutor in a private family ; if for these or any other reasons he does not within the interval of a year obtain a situation as pastor, he is then required to sustain still another examination before he can be admitted to the pastoral office. This third examination, however, is in some respects an irregular, or rather a variable one ; its character depending much upon the circumstances of the case. It is not usually termed an

examen; but the consistory invite the candidate to a *colloquium*, and then examine him more or less closely, according as a greater or less time has elapsed since his previous trial; or as they may perceive that his standing or habits require. This regulation is obviously a judicious one; since otherwise a candidate who had sustained the second examination and had then adopted a different course of life, could after the lapse of many years enter unrestrained upon the sacred office, for which, according to the established regulations of the country, he might be no longer qualified in any degree.

When all the previous steps have in this manner been taken; when the young man has thus spent from four to seven years at a gymnasium or under other equivalent instruction, and three years more at a university, and has produced the necessary testimonials of propriety of conduct and of having pursued the requisite branches of study; when he has thus sustained the first examination, which admits him to preach; and after a year the second examination, which qualifies him to enter upon the sacred office; and in default of thus entering within a year from that time, a third examination,—when all this has been accomplished, and the candidate has obtained a place of settlement, either by the invitation of a parish, or by the gift of the government; he then receives ordination, and is inducted into his living. The ordination takes place under the authority and by direction of the consistory; and after this has been accomplished, the future pastor is inducted, and invested with the authority and privileges of his office, by the superintendent of the diocese to which his parish belongs.

GÖTTINGEN. The number of students at this University seems to have greatly diminished, in part, probably, on account of the political disturbances which occurred there two or three years since. During the summer semester of 1833, only 843 students were matriculated; of whom 215 were in Theology; 308 in Law; 206 in Medicine; and 114 in the faculty of Philosophy. At the end of November last, the number entered for the present winter semester was 833. In the summer of 1825 there were over 1500 students; and in the winter of 1829-30, nearly 1300. See p. 34.

THE
NECESSITY
OF
PHYSICAL CULTURE
TO
LITERARY MEN,
AND ESPECIALLY TO CLERGYMEN.

BY EDWARD REYNOLDS, M. D.
OF BOSTON.

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THOMAS CLARK, 38, GEORGE STREET.

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NECESSITY
OF
PHYSICAL CULTURE
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LITERARY MEN.

THE subject of this discourse has occupied the attention of so many profound minds, that it is impossible to offer any thing new. My object in addressing you is not display or amusement. The distracting cares and the numerous occupations of an arduous profession, wholly unfit me for either. I come with the simple desire to be *useful*; and to raise my feeble voice in behalf of a subject intimately connected with the vital interests of the church. I do it cheerfully, because I believe it to be the cause of God. I would do it solemnly, because I believe that the neglect of it is eminently calculated to retard the progress of his church; and because I fear, that the peculiar character of the age in which we live, subjects the clergy to continual temptations to such neglect.

It is emphatically an age of intellectual enterprise. The human mind seems to have awaked to a consciousness of its powers, and is beginning to put them forth in the direction for which they were created. A general desire for knowledge in the various departments of science, pervades all classes of the community. Learning, no longer confined within the walls of our seminaries and colleges, is diffusing, through the instrumentality of tracts,

periodicals and lyceums, its happy influences over the mass of our population; and kindling within it new desires for intellectual improvement.

When we behold the mighty efforts which this thirst for knowledge has already created, and trace the footsteps of improvement, from the infant school up to our highest seminaries of learning; when we see it accumulating such ample provisions for the highest intellect, and descending in kind simplicity to the wants of the humblest minds; we are cheered by the prospect, and may be almost pardoned for the feeling, that we are approaching—perhaps have already reached—that long expected hour, predicted by the beloved prophet in those remarkable words, “Many shall run to and fro, and knowledge shall be increased.”

It is also emphatically an age of religious enterprise. The church and the world are animated with the same spirit of advancement. ONWARD is the watchword of all her true children. With a more realizing sense of her solemn responsibilities, she is putting forth new exertions in behalf of a perishing world. Under her happy auspices, old systems of error in the moral and political heavens are rapidly crumbling away; ancient landmarks of oppression have disappeared. Guided by her sacred torch, liberty, rational and Christian liberty, is lifting up her head to bless mankind. The glorious work of benevolence has been ramified into its thousand branches, until almost every physical want is provided with its appropriate remedy. Looking with the eye of faith beyond this present scene, she is making new efforts to alleviate the more urgent wants of the never-dying soul.

So much has already been effected, that even the enemies of the cross are compelled to acknowledge that its religion is indeed “peace on earth, and good will towards men.” This vital spark of love once enkindled in the soul, is destined to burn on, until every dark corner of this fallen world shall be cheered by its light; until every enemy of God is subdued by its power; and until man has assumed that glorious rank as an intelligent, holy being, for which the Creator intended him.

To the Christian patriot, then, and especially to the Christian minister, the present is a period of deep and absorbing interest. Its intellectual and religious character imparts to it peculiarities, which distinguish it in many respects from all other times.—When he beholds the clear footsteps of God in the events of the world around him, and with unshaken faith in the promises, looks onward to the future; he feels that a high and holy trust is committed to his care; a trust demanding the most vigorous effort of all his powers. He feels that much of the hope and happiness of unborn generations may perhaps depend upon the fidelity of his exertions. Besides this, the intellectual state of society subjects him to the necessity of much deep thought, patient, severe study, and a knowledge of many branches of learning, not directly connected with his profession.

It is one of the great evils of this state of things, that the Christian minister is exposed to continual danger; that his efforts, noble and praiseworthy as they are, may occasion injury to his health, which will render them abortive. In the ardent pursuit after knowledge, he is too apt to neglect the body; and to overlook the fact, that the mind, while united with the body, partakes of all its infirmities.

It becomes, therefore, a question of unspeakable importance, how he may be a faithful servant, and so use the mind, as to secure all its powers to the best advantage, and for the longest time, in the great work of Christian benevolence.

This can only be effected by a judicious and practical attention to physical education. Such a course must be adopted in regard to diet and exercise, as is conformable to nature; and calculated to establish that perfect harmony of action between the body and mind, which is necessary to the health and vigour of both—in other words, such habits of life as will render learned men, healthy men.

The man whose position in society demands of him great mental effort, should make the acquisition of this knowledge one of his first lessons. Otherwise, he is con-

tinually exposed to dangers, which may, sooner or later, paralyze his efforts. Until he has learnt this lesson, he cannot fulfil the high duties which he owes to society and to his Master in heaven. I would almost say, that the scholar who cultivates the mind exclusively, to the neglect of the body, as effectually buries his talent in the earth, as he does who cherishes the body and neglects the mind. Plato calls that man a *cripple*, who exercises the mind and neglects the body. How many of Plato's cripples have belonged to the army of the cross, encumbering its march, and bearing like so many dead weights upon its efforts; men with minds formed to soar to heaven, and wield the elements of the moral universe; but chained down by neglected bodies to inactivity and disease! How often has Zion been called to weep bitter tears over these disappointed hopes! The mind thus used, or rather abused, becomes weakened by the very means which were intended to strengthen it.

This is a growing evil, to which the circumstances of the present age render us peculiarly liable. It is an evil over which literature and religion have long mourned; which has thinned the ranks of the Christian army to an alarming degree, and too often blasted the fond anticipations of its devoted friends.

Every occasion, therefore, which encourages us to believe that the axe is about to be laid to the root of this evil, is one of deep interest. I regard the anniversary of the Mechanical Association,* which we have this morning assembled to celebrate, as one of these occasions. I rejoice in it, because I here recognise the fact, that the vital importance of this subject is beginning to be seen and appreciated. I rejoice in it, because I believe, that it has already awakened a spirit, by its beneficial effects on many whom I have now the pleasure of addressing, which may cause its benefits to be extended to other valuable institutions in our country. I rejoice in it, because we have fallen upon times which demand great and

* This discourse was delivered before the Mechanical Association of Andover Theological Seminary.

long protracted mental exertions; and few men can be prepared for such exertions, without obtaining that state of mutual harmony between the corporeal and mental powers, which alone can enable each to act out its appropriate functions perfectly, and produce that most desirable of all blessings, the *MENS SANA IN CORPORE SANO*.

Sound health is necessary to the successful prosecution of literary pursuits. Disease throws a chain around the mind, which the latter, by its own unassisted endeavours, cannot burst asunder. This truth is abundantly confirmed by the biography of ancient and modern times. The instances of feeble scholars, who have attained to great literary fame, that here and there appear upon its pages, are exceptions which do not militate against the fact. The laurels with which they were crowned, are to be considered rather the result of great genius, and other favouring circumstances, than of intense mental effort. While the mind and body are united, and subject to the immutable laws imprinted on them by the Creator, the vigour of the one must depend, more or less, on the health of the other. The mind cannot devote itself to diligent study and protracted labour, and range freely in the regions of thought, while the body is pressed down by the leaden weight of disease. Its purposes are broken and its resolution is faint. To borrow the language of the British moralist, who spoke from the knowledge which sad experience had taught him, "The time of such a man is always spent in forming schemes, which every change of wind hinders him from executing; his powers fume away in projects and in hopes, and the day of action never arrives. He lies down at night delighted with the thought of to-morrow; pleases his ambition with the fame he shall acquire, or his benevolence with the good he shall confer. But in the night, the skies are overcast; the temper of the air is changed. He wakes in languor, impatience, and distraction; and has no longer any wish but for ease, nor any attention but to misery."

Ill health is equally unfavourable in its effects on the heart. Piety is affected by the animal spirits; and the spirits must and will flag, when the body is diseased. It

is the medium of communication for the soul with outward things. When that medium is disordered, no object is presented in its true colours. Nature to such a man has lost its beauty. "The heavens are clothed in sackcloth; the earth is dressed in the garment of mourning." We daily see instances of this melancholy fact. They speak too from the grave. It stands forth in mournful prominence, on the pages of many a diary that issues from the press; and doubtless on many more, which have not yet been presented to the public eye. We could almost weep, while perusing these memoirs, to find faults in them, which even the partiality of friends could not, consistently with truth, omit; but which, we know, were the result of self-induced disease. It has grieved us, after perusing them, to feel obliged sometimes to conceal them, that the enemies of religion may not use them as a cloak for sin, or employ them as arms against the cross. The physician is often called to witness these mournful effects of disease on spiritual life. He is often obliged to use all his skill and all his prayers, before the cloud can be dispersed, which sickness has settled around the holy heart. The clergyman will often be called to witness the same. It becomes him above all men, to beware, lest through inexcusable neglect of health, he appears with the same cloud around his own heart; and becomes the victim of the same disease he is called upon to remove.

Ill health is often a degraded state. What can be more pitiable, than to see a mind formed for great effort—to be almost caught up, while in the body, to the third heavens, and grasp, in its broad embrace, "the unutterable knowledge of the goodness and glory of God;" and diffusing this knowledge among its fellow-creatures, to lead them, with resistless power and eloquence, from earth to heaven—what can be more pitiable than to see such a mind chained down to the flesh it inhabits; and brooding in mournful and almost unpitied selfishness, over the ills its own ignorance, or folly, or misdirected ambition has occasioned? Where is the freedom, where the religion of such a mind? Like Sampson grinding in

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the prison-house of the Philistines, the possessor of such a mind is confined to the prison-house of his own digestive organs ; and he must have more than mortal powers, to come out from its gloomy enclosures, and preach, as he should preach, the pure and spiritual religion of Jesus.

Ill health is also a depressed state. How can a man in in such a condition, depressed in spirit, filled with fear, weak in purpose, with relaxed nerves and feeble muscles, his mind engaged in a perpetual struggle with melancholy presentiments and gloomy cares,—how can such a man be prepared to comfort and cheer the desponding, “to lift up the hands that hang down and the feeble knees?” Arrayed continually in sackcloth, how can he preach glad tidings of great joy ?

But there is another consideration which should not be omitted,—ill health is too often a sinful state. It is sinful, whenever it is the result of ignorance, which, with due care, might have been enlightened. He sins, who, from false security in his present vigour, neglects the use of those wise, precautionary means, which will secure its continuance. Indeed, the decisions of the great day will alone reveal, how much every man sins, who sacrifices health, the best of all human blessings, at the shrine of literary fame, by incorrect notions of duty, and above all, by indolence and sloth.

The opinion is too prevalent, that ill health is a necessary consequence of study ; that the man who devotes his life to books, must be willing, like a martyr at the stake, to bid farewell to the pleasures of health. But this is incorrect. Look at Germany. The German students are healthy men. Their mode of life, if examined, will afford a solution of the fact. They devote more time to study, study more intensely, and accomplish more in proportion to their advantages, than our own scholars. But let it not be forgotten, that, at the same time, in obedience to one of the laws of physical education, their seasons of mental labour are alternated with habits of perfect relaxation. They unbend their minds by free and unrestrained amusement ; and give themselves up more than we do, to the full indulgence of the social affections ;

than which, few things are more conducive to the health of learned men. When the German student leaves his study, he shuts the door upon its cares and labours; and goes out into the world, like other men, for repose and enjoyment.*

There is another point of difference to be well noted. They are accustomed to habits of study, almost from infancy. They do not, like many of our students, change suddenly from a youth of bodily labour, to studious, sedentary habits. These men bring to their new labours, strong constitutions, the consequence of correct early habits; and deceive themselves with the belief, that they shall be able to resist the causes that break down more feeble men. This is often a fatal mistake. The slender willow bends to the blasts which break the sturdy oak. The more feeble man educated in a city and to a comparatively inactive life, often holds out the longest and the best. The difference is like that between the sexes. The more delicate will bear confinement from the very fact, that they have always been accustomed to it. Tissot alludes to this circumstance. "Even the strength of the constitution is dangerous. People of excellent constitutions apply themselves to study with indefatigable industry. The powerful action of the soul increases that of the other organs; and they are attacked with inflammatory diseases, the consequence of irritation long kept up in vigorous habits. Sometimes, they expire in the first attack. More commonly, they get the better of that, and give themselves up again to the same labours, and fall again into the same disorders. At last in process of time, being worn out by these attacks, and by their labours, they lose their strength, and fall into consumptive diseases, against which they are no longer able to resist."

To these men, therefore, especially, is a continuance of labour necessary, to insure the blessing of health; and

* Compare here the results of Professor Robinson's observation on this subject, as stated in the note on pp. 57, 58 of No. V. of STUDENTS' CABINET LIBRARY of Useful Tracts.

very few are the instances, where it can be neglected, without treasuring up materials for future suffering and repentance.

In order that the dangers to which the health of literary men, and especially of the clergy, is exposed, may be successfully met and resisted, they must be seen and understood. A faithful examination of the structure and uses of the human body ; the intimate connection existing between the body and the mind ; and the reciprocal action of one upon the other, in health and disease, will alone reveal the source of these dangers, and supply the remedy.

From such an examination, which would be a subject of deep interest, did the time allow us to enter minutely upon it, we learn the following fundamental laws of our nature, viz.

1. That the body was formed, and is admirably calculated, for great activity and exertion ; and that such activity and exertion are indispensably necessary for the healthy performance of its functions.

2. That the mind and body, while united, are connected by close ties, and subject to numberless mutual sympathies. In consequence of these sympathies, each will inevitably feel, in a greater or less degree, the various infirmities of the other. Undue use of the body invariably produces a debilitating effect upon the mind ; and undue use of the mind as invariably occasions disorder of the body. Disease in this way once excited, they are capable of acting and reacting one upon the other, until the cause continuing, the power of both is paralysed, and eventually destroyed.

3. That neither the body nor the mind are capable of attaining the highest point of perfection, until both are brought into full action ; and the exact ratio of action ascertained, which each can bear without occasioning injury to the other.

The first of these laws, the necessity of action to the health of the body, from which the others naturally and necessarily follow, is the very element of physical education. It is taught in the structure of our frame. It is based on the broad surface of eternal truth ; and stands

out in bold relief on the first page of the inspired word of God: "By the sweat of thy brow shalt thou eat bread." This sentence was uttered, be it ever remembered, by that infinite omniscience which created the body, and was consequently best acquainted with its wants. It was uttered as a curse; and doubtless to Adam in paradise, it was a curse. But the moment he became a fallen being, and the flaming sword of the cherubim closed the entrance to those pure abodes, it became, under the gospel, one of his greatest blessings. It is the immutable law of God, and originated in his wisdom and benevolence. It is in strict conformity with the constitution, the nature, and the wants of man; and the history of man, from that time to this, seems to prove that, like the moral law, not "one jot or tittle of it shall pass away till all be fulfilled."

By it, Abraham, Isaac and Jacob, after many years of pastoral and agricultural life, attained to a green old age. By its strict observance, Moses and Joshua came to their graves "like a shock of corn fully ripe;" and walked in and out to the last as in the days of their youth. "Their eyes were not dim, nor their ears dull of hearing, nor their natural force abated." And who shall enumerate the long catalogue of philosophers, poets, and preachers, who lived by this law; and, though their heads were silvered by age, found not the "grasshopper a burden," and were useful and happy to the end?

It strengthened St. Paul, whose whole history teaches us that he was an active man, for his mighty labours by sea and by land, his frequent preaching from house to house, in season and out of season, and for his unwearied efforts, until the gospel had sounded out to the uttermost parts of the heathen world. Here was one of the true sources of his courage in danger, and his indefatigable activity and laborious perseverance in the cause of God. It was health, the reward of labour, active labour of body and mind. Paul did indeed eat his bread by the sweat of his brow. His own hands, as he tells us, wrought for him; and it was doubtless a morsel sweetened by exercise and digested with ease. And he ate whatever was

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set before him, asking no questions.* You never find Paul discussing with nice but sickening discrimination, the comparative merits of different articles of food. He found all good; and with the temperance enjoined by the Scriptures, for his guide, digested all with too much ease, to believe that the Father of Mercies had covered the earth with poisons for his children. When Paul fell in company with the beloved sisterhood, he had other communications to make than the tedious recital of his diseases; and even he perhaps would have betrayed impatience at the many anxious queries upon this subject—which is now so common a topic of conversation, and received with so much complacency. He had strength of body which prepared him for all toils; and he had too, the unwavering trust in God, and the peaceful serenity of mind, to which health so constantly disposes the sanctified heart.

It is one of the distinguishing features of the Bible, that all the truths which it utters are in perfect harmony with the book of nature. The mighty mass of accumulated facts, which the history of the world and the history

* 1 Cor. x. 25, 27. The allusion to this passage is of course here made by way of accommodation; as the apostle is in strictness speaking of *conscience* in regard to meats which had been offered to idols; and it has been suggested to me, that perhaps some alteration should be made in the part where allusion is made to Paul's eating all things, &c. I think, if the passage be examined, it will be found that it gives no license to men with weak stomachs, or those who are too fond of 'things that profit the belly.' It is very clear to me, if such would work as Paul worked, and be as *temperate* as he was, this said sentence would not prove a fatal man-trap to them.

The subject of *diet* was not discussed in the address, because it was impossible to do any justice to it in the short time allotted to me on that occasion; and because I felt that correct ideas on the subject of *exercise* were of equal and perhaps greater importance to my hearers. The allusion here made to it, at the same time that it allows no undue license to invalids, points distinctly at the rule which must form the corner-stone of all correct dietetics. It is **TEMPERANCE**. As a general rule, it is doubtless true, that the quantity of food consumed is a more frequent cause of disease, than the quality; and most men, by proper attention to the one, will with a moderate degree of observation of the peculiarities and habits of their own systems, suffer little or no injury from the other.

of man have developed, all serve to augment the evidence of its truths, and prove it to be the product of an omniscient mind. This is strikingly true of the decree requiring labour of man as the price of health. The more it is compared with the results of pathological and physiological researches, the stronger will be the conviction of the necessity of exercise to man.

The ancient philosophers, by the simple light of the book of nature, clearly recognised this law; and by obedience to its precepts, attained a strength of body and a vigour of mind, which have rarely been equalled, and never surpassed. But the moderns, with the strong light which the book of grace has concentrated upon the book of nature, have overlooked it; and body and mind exhibit too plainly the consequences of this neglect.

In the schools of the ancients, exercise was considered an object of such paramount importance, that it became elevated to the rank of a science; and was taught with the utmost care. So manifest were its beneficial tendencies upon the body and the mind, that a distinguished physician established an institution, the avowed object of which was, by exercise of various kinds, and diet, to brighten the wit, and strengthen the intellect of the dull scholars of the schools. With the same view, (and doubtless it was the result of observation,) some of the philosophers strongly recommended the study of medicine to the learned; so firmly did they believe in the important connection between the health of the body, and the soundness of the mind.

Here then was the true source of the health of the ancient philosophers. They devoted as many hours to hard study and severe thought, as the scholars of the present day. But there was no dyspepsia among them, because their habits of life were conformable to nature. They lived and studied and thought in the open air. The wants of the mind never tempted them to neglect those of the body. They saw that exercise was necessary to both, and they exercised both. Will not the same cause explain the remarkable difference in the health of physicians and clergymen? The pains of the medical profes-

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sion are as great ; its toils are perhaps greater than those of the clerical profession. It presents one continued series of harassing cares and distressing anxieties. It demands also much mental labour. The irregularities of the physician's life often set all prudential attention to his own health at defiance. He can neither eat, drink nor sleep, like other men. No class of the community take less medicine than physicians ; and yet notwithstanding the manifold evils of the profession, all tending directly to wear down and exhaust the vital powers, the physician, compelled to keep the body in constant action, is seldom an invalid.

During the first five hundred years of the Roman empire, there was no professed physician in Rome. Why, I know not, unless it was because the Romans were, during that period, so strengthened by temperance and exercise, that they needed none.

Whenever the Bible produces its legitimate influence on mankind, and men eat and drink and sleep and *work* according to its dictates, which the more they are examined, will be found to be the dictates of nature and common sense, the school of the prophets will doubtless greatly out-number that of the physicians. When the millennial glory shall have covered the earth, diseases will be few and simple. All those which are the result of luxury, corruption of morals, and unnatural modes of living, and especially the diseases of literary men, which are the legitimate progeny of too much use of the mind, and too little use of the body, will be found only on the pages of history.

Since the introduction of Christianity, and the consequent changes in the art of war, the national necessities which introduced gymnastic science into the world, have passed away ; and unfortunately for the cause of literature and religion, the science itself has disappeared also. But the relation between the body and the mind still subsists. The same necessity which sent Plato and Aristotle to the gymnasium after severe mental labour, still exists with the hard students of our day. Would it not be well, while we glory in forming our *minds* upon the

noble models of the ancients, to imitate their praiseworthy efforts to form the *body* to healthy habits? Is it not humiliating, that the laws of nature should have called forth a spirit of obedience from the pagan, which the laws of God fail to obtain from the Christian philosopher? The path of nature is plain. The Bible sheds its bright light upon it, so that it need not be mistaken. Let us walk in it. Then will dyspepsia cease to be the terror and reproach of literature and religion. Then will be seen more true manliness and vigour of mind; and more of that cheerful, active, confiding piety, which the religion of Jesus, when unobstructed, always produces.

Every fact presented by the pathology of the diseases of literary men, confirms the opinion that the neglect of physical culture lies at their foundation. The investigation of this subject would be an interesting and useful study; and lead to a knowledge of important facts, which could not fail to call forth that practical attention to it, which its vital importance demands. Every man, whose situation exposes him to suffer from ignorance or inattention to this subject, would be amply repaid by its thorough investigation. Perhaps the peculiar character of the age in which we live, renders an inquiry with which the interests of the church are so much connected, an imperious duty. The present occasion only permits us to notice very briefly one of these facts.

It is a law of the corporeal system, that whenever any organ is brought into inordinate action, a determination of blood takes place in it, by which it becomes oppressed, and its functions impaired; and in exact proportion to its degree of vitality or relative importance in the system, all other organs connected with it by intimate sympathy, will be injured. Hence the diseases of the lungs in musicians and public speakers; and the disorders of the eyes in men whose profession brings these organs into continual use. A knowledge of this simple principle will direct us to the origin of some of the various maladies, which are the result of sedentary habits and unintermitted study.

The brain is the immediate organ of thought; the in-

strument with which the soul, during its abode in the body, performs all its functions. It is also the great source from whence vitality flows out to all the various parts of the body, supplying them with that living energy which is necessary to healthy action. Weaken the nervous connection between the brain and these organs, and their functions immediately begin to languish; destroy it, and they instantly cease. But a most remarkable sympathy exists between the brain and the stomach. It is so reciprocally shown in a great variety of ways, in health and disease, as to have become a subject of daily notoriety to the most careless observer. How does grief, fear, and sometimes even joy, wither the energies of the latter, and not unfrequently lay the foundation of irremediable diseases! These are the effects produced on the stomach, by the overaction excited by the passions upon the brain. They are so common, and sometimes so striking, that any person who examines them with accuracy, will cease to wonder that the ancients considered the stomach to be the seat of the passions.

Every man of letters must have witnessed the reciprocal sympathies of these two organs. Who has been uniformly so temperate as not to have ascertained, that repletion of the stomach indisposes the mind for intense thought? And who that has ever thought intensely, has not found that it impaired the action, and diminished the wants of the stomach?

Whoever looks with the eye of a physiologist upon this subject, will not be surprised that Sir Isaac Newton, while engaged in the deep thinking which enlightened mankind with his splendid discoveries, often forgot his dinner; nor can he fail to see the reason, why his simple cracker and cup of cold water enabled him to pass whole days, in deep abstraction upon the sublime subjects of his labours. The fall of an apple is said to have led his great mind to the detection of the principle, by which the material universe is retained in harmonious movement. Who shall declare the mighty influence, which these two simple articles of diet exerted upon his wonderful discoveries?

When the close dependence of every part of the body

upon the brain is considered, and especially the intimate sympathies between it and the digestive organs, is it surprising that long continued and intense occupation of the mind—in other words, action of the brain, should occasion disease in these parts? Such occupation excites an increased action of its blood vessels; an unnatural quantity of blood is thrown upon it; it is wearied; and undue pressure upon its tender substance is the inevitable consequence. This is proved by the pain, sense of heat, and confusion of head, which is experienced after a season of severe mental labour. Can all this happen, can it happen day after day, and year after year, and the health suffer no material injury? The records of the profession present a multitude of cases, in which the physician perceives at a glance, that pressure on the brain is the evident cause of many of the diseases with which deep thinking men have been afflicted. Sometimes, it has been so great as to occasion vomiting, convulsions, apoplexy, and death; which, though extreme cases, afford a ready explanation of the long train of less striking, but not less important affections, daily appearing under the name of dyspeptic complaints. Many of them are the result of the same cause, overaction of the brain, debilitating the stomach and other digestive organs.

One of the inevitable consequences of this condition of the brain, if not remedied by proper management, is debility of the organs that derive their energy from the nervous influence imparted to them by its healthy action. Tissot, who has written very instructively upon this subject, illustrates the manner in which this happens, by a very striking thought. "Deep thinking," says he, "may be considered as a ligature applied to all the nerves coming from the brain; which, putting a stop to their action, brings on the same consequences to the whole machine, as a ligature applied more or less tight to the branch of a nerve, would induce on the parts to which that branch was distributed."

The stomach, so intimately allied by nervous sympathy to the brain, will always, as would be expected, be the first to feel the injury. This organ, whose office is to

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prepare and assimilate the materials which build up and strengthen the body, oppressed by the burthened brain, comes to its daily task with weakened energy ; in which, after ineffectual efforts, it fails, or performs it so imperfectly, that the object is not obtained. And now a second source of close and extensive sympathies, existing between the stomach and every part of the body, is thrown open. It is impossible, when this organ, which Lord Bacon emphatically calls the father of the family, is disordered, that every other should not participate in its woes. And such, as the melancholy experience of many a votary of science has taught, is the fact. All the abdominal viscera languish in inactivity and disease ; the heart feels deeply the evil ; and the whole arterial system is weakened, and irregular in its actions ; the skin becomes pale, dry, sallow, and debilitated ; the muscular system flags ; "the strong men bow themselves ;" the nerves are unstrung ; and unless the cause be removed, and the remedy applied, the protean disease continues, until the health is destroyed beyond the power of recovery.

Would we could stop here ! But no ; while the body and mind are united, according to the immutable laws of nature, they must reciprocate each other's infirmities. There is a more intimate relation between the powers of the mind and the morals, and the health of the body, than is commonly supposed. The body when injured to a certain extent by mental exercises, begins to react upon the mind ; and produces the most deplorable consequences. The memory becomes impaired, the ideas confused, and the power of thought is broken. The elastic spring of the soul is weakened. Pusillanimity usurps the place of that moral courage in a man, which could meet every trial with firmness ; the cheerfulness which shed its sunshine over his path, is no longer seen ; the spirits are dejected ; every difficulty appears insurmountable ; every effort depresses. Overcome with the common duties of the day, he lies down at night, but not to repose. Extreme irritability of the nervous system drives sleep from his pillow, and happiness from his

heart. The voice of friendship falls powerless upon the ear; the love of God kindles but a momentary feeling in the palsied soul. Is this the man who shall lead on the armies of the cross, and successfully repel the machinations of its great enemy, when, preparing for a last desperate effort, he has arrayed himself as an angel of light? With how much reason did the ancients, when they beheld such a picture, also conclude that the stomach was the seat of the soul! In giving it that location, they, at all events, discovered habits of accurate observation, which it would be the part of wisdom in us to imitate. The man who bestows all his care upon the brain, and leaves the stomach to chance, may find, when too late, that he has neglected a friend, whose place no other can supply.

But while pathology leads us to the cause of this alarming evil, which has so often beset learned men, and especially the clergy, physiology points with unerring truth to the remedy. Time only permits us to take a very superficial view of this subject. "Whoever examines the body will be struck with the fact, that a process of alternate waste and renewal is perpetually taking place in it; that life itself is nothing else than an incessant ceasing and being; a continual change of restoration and destruction; an everlasting contest of the chemical decomposing powers, with all the combining and creative vital powers. The body never remains the same; it never stands still for a single moment of time; one part after another, as it becomes useless, is dissolved, absorbed and removed out of the body; while new component parts from without, are received into the body, converted, animalised, and deposited to supply their place. Life, therefore, is a continued receiving, appropriation, and giving back; an incessant mixture of life and death."^{*}

"The blood, the fountain whence the spirits flow,
The generous stream, that waters every part,
And motion, vigour, and warm life conveys,
To every particle that lives and moves;

^{*} Hufeland on Longevity.

This vital fluid, through unnumbered tubes,
 Poured by the heart, and to the heart again
 Refunded, scourged for ever round and round,
 Enraged with heat and toil, at last forgets
 Its balmy nature : virulent and thin
 It grows ; and now, but that a thousand gates
 Are open for its flight, it would destroy
 The parts it cherished and repaired before.
 Besides, the flexible and tender tubes,
 Melt in the mildest, most nectareous tide,
 That ripening nature rolls ; as in the stream,
 Its crumbling banks ; but what the vital force
 Of plastic fluids hourly batters down
 That very force those plastic particles
 Rebuild ; so mutable the state of man."*

It is upon this continual alternate waste and repair, that health depends ; and by this the various organs of the body are enabled to perform their functions. Motion seems to be the very element of all this curious and mighty process. Vigorous motion indicates health and strength ; feeble motion denotes debility and decay ; a cessation of motion is death. A striking indication this, from the very structure of the body, that inactivity is not the natural condition of man !

This wonderful operation, constituting what is called life, is carried on by the arteries, veins, the absorbent and exhalent vessels. The first, or absorbent vessels, may be called the builders up of the body ; they are continually bringing the materials necessary to keep it in repair. The second are as incessantly occupied in carrying away those, which, by use, are no longer serviceable.

Besides this, the vessels perform another very important office. They communicate to every organ, by their movements, that mechanical impulse, which is necessary to the healthy, vigorous performance of its functions. If the very remarkable motion which they thus impart to the brain, is considered, one will not wonder at the exclamation of Pliny : "Mirum est ut animus agitatione motuque corporis excitetur."

* Armstrong's Poem on Health.

Let us now examine very briefly the effects of exercise upon the circulation, the respiration, the skin, the muscular system, the nerves, and the digestive organs.

1. An examination of the structure and arrangement of every part of the arterial and venous system, exhibits numerous contrivances of its great Author, arranged upon the strictest mechanical principles, the manifest intention of which is to prevent a retardation of blood in the extreme vessels. They are very remarkable in the veins, whose office it is to return the blood replenished with new materials to the heart, in order that these may undergo the great chemical change in the lungs so necessary to health. We learn from these contrivances and many phenomena of disease, that there is a constant tendency to this retardation. Indeed, so great is the tendency, that these designs, however perfect and wonderful, are not sufficient to counteract it, without some other aid. This aid is exercise.

The heart sits in the centre of this system ; and in the sedentary man, is compelled to perform the whole of the arduous labour of the circulation. But not so with the child of nature, and the man who exercises the body according to the principles of nature. It was evidently never intended that the heart should carry on this work unassisted ; and where it does so for a long time, diseases, the result of weakness of the extreme vessels, will be the inevitable consequence. The strength of the heart and arteries alone, in a sedentary course of life, is not sufficient to keep up and perpetuate the circulation through the smaller blood vessels. The assistance and united force of all the muscles of the body, are required for that purpose.

It is one manifest design of the muscles, to aid the perpetual efforts of the heart to send the vital stream of life to every part of the frame. So extensive, so numerous, and so infinitely diversified are the ramifications of the vessels among the muscles, that a single contraction cannot take place without diminishing the labour of the heart ; which it does by increasing the action of the extreme vessels, where the circulation is most liable to flag.

Whenever they are all brought into steady and vigorous action, as is the case in manual labour, and all proper modes of exercise, new power is imparted to the capillary vessels ; the heart acts with increased vigour ; the circulation is rendered more free and easy ; there is an augmentation of animal heat ; in a word, the whole arterial and venous system acquires an actual increase of strength, and the body is unaffected by the numerous chronic diseases to which sedentary men are subject. The foundation of most of these complaints, is an obstructed condition of the smaller vessels ; because the heart, unassisted by the muscles, has not sufficient power to keep up a steady, uniform, vigorous action in them.

2. Exercise exerts an extremely important influence upon the health, through the medium of the lungs. The action of the muscles not only facilitates the circulation, by counteracting the causes that constantly tend to impede its freedom ; but by increasing respiration, it improves the quality of the circulating fluid. The man who allows himself a due proportion of exercise, consumes in the more rapid respiration it occasions, a greater quantity of atmospheric air. And what is the consequence ? His blood becomes more highly oxygenated ; and is also freed from a greater proportion of the deleterious principle, with which it is charged, and which is destined to pass off so abundantly, by uniting with the air in this function. The vessels of such an individual, therefore, not only possess greater vigour of action, but actually contain a more vital fluid. A fluid capable of producing a more healthy excitement, circulates to every part of the system, and imparts a tone to it, which amply repays all the toil by which it is acquired. It is this which paints the skin of the child with its healthy, florid hue ; and gives to the labouring man the strength for which you look in vain to the sedentary student, who sickens over his books, slowly respiring the corrupted air of his chamber, and too indolent or too unwise to avail himself of the best of nature's tonics.

3. Exercise produces a most salutary effect upon the system, by its beneficial action on the skin. This is the

most extensive secreting surface of the body. The exhalent vessels open upon it with their million mouths, and are incessantly pouring out in sensible and insensible perspiration, the useless, corrupted, and worn out particles, which, by longer continuance, would be injurious to health. Health would decay, and life itself be destroyed, without the continued active condition of this organ. It is calculated that between three and five pounds are carried off in a healthy man, every twenty-four hours, by insensible perspiration; a greater quantity than is removed by all the other secretions combined. Besides this, it possesses very intimate sympathies with the lungs, stomach, and other abdominal viscera. Daily observation affords innumerable instances, which show that obstructions of the skin are capable of calling these sympathies into diseased action, and occasioning fatal disorders of these organs. Nothing maintains the just equilibrium of the circulation, so necessary to the preservation of health, so much as an active condition of the surface. This is so true, that disease seldom or never exists, when the skin is in a healthy state. A restoration of its functions is also one of the first evidences of returning convalescence to the invalid.

Nothing promotes insensible perspiration so much as regular exercise. Of what vital importance is the free circulation of the extreme vessels, opening upon this extensive surface! They are continually liable to become debilitated in their functions, by their distance from the heart. Of what immense consequence, then, is it, that they should be assisted by muscular action! What seeds of disease does the sedentary man accumulate in his system, when, from unholy ambition, misdirected zeal, or unpardonable sloth, he neglects exercise, by far the most effectual of all the means which the Creator has provided for the healthy condition of the skin!

4. Exercise exerts a most wonderful power in imparting strength to the great muscular system. Compare the labourer's arm and the porter's leg, with the student's ill expressed and puny limbs. If we could see the most beautiful models of the human form, we must go to Greece;

the land where gymnastic exercises were brought to the fullest perfection. Let us not forget, that there also were found specimens of mental beauty, which never have been surpassed.

5. It is by exercise alone that we can ever hope to expel that cruel enemy of literature and religion, which the sentimentalism of modern days has cherished under the name of weakness of the nerves. Weakness of the nerves! Shame on the short-sightedness of our intellectual eye! It is disorder of the stomach and its dependent organs, debility of the muscles, weakness of the brain rather! And this weakness of the nerves, is but the voice of these faithful sentinels of nature, uttering their plaintive tones, and praying for relief. They point us to

“ The labourer of the glebe, who toils,
In dust and rain, in cold and sultry skies ;
Who knows no laws by Æsculapius given,
And studies none.”

Armstrong.

And pointing to him, they shew us the true and only effectual means of cure. It is exercise,—labour. Let this remain, and all other antinervines may be blotted from our *Materia Medica*.

“ Toil and be strong ; by toil, the flaccid nerves
Grow firm, and gain a more compacted tone.” *Ibid.*

6. But above all, the beneficial effects of exercise are visible on the contents of the abdominal cavity. Here are situated all the most important organs of the body ; those parts which the observing Plato called, the “ props of the soul.” Who that ever saw a sickly, learned man, will dispute the propriety of the term? In the midst of them all is the stomach ; the dignity and importance of whose office, Livy has immortalized in the following pleasant, but striking manner : “ In times of old, when every part of the body could think for itself, and each had a separate will of its own, they all, with common consent, resolved to revolt against the stomach. They knew no reason, they said, why they should toil from morning till night in its service, while it, in the mean

time, lay at its ease in the midst of them all, and indolently grew fat upon their labours. Accordingly, one and all, they agreed to befriend it no more. The feet vowed they would carry it no longer; the hands vowed they would feed it no longer; and the teeth averred, they would not chew a morsel of meat, though it were placed between them. Thus resolved, they all, for some time, showed their spirit, and kept their word. But soon they found that instead of mortifying the stomach by these means, they only undid themselves. They languished for a while; and perceived, when too late, that it was owing to the stomach that they had strength to work, or courage to mutiny." But nowadays, things are somewhat changed. There is no longer a spirit of union among the members; the hands and teeth have left the conspiracy, and the legs alone are found among the traitors. The consequences however are quite as sad; and death, though more lingering and painful, is equally sure. How many men can respond in bitterness of soul to the simple truth conveyed in this narration! Of all the parts of the body, none are so apt to be injured by inactivity as the stomach and other abdominal organs. No others have so little independent motion of their own; and no others depend so much as they do, upon exercise of the whole body, for those impulses, which can alone enable them to overcome the natural sluggishness of their movements, and the various injurious obstructions to which this predisposes them; and which lie at the foundation of many of the diseases of literary men. The body cannot be brought into vigorous exercise without communicating, at each muscular contraction, a movement to all the internal organs. To be fully impressed with the extent of this, it is only necessary to look at a person, when affected with a slight inflammation of any of the abdominal viscera. Why does he move about with such extreme caution, and take such pains that every step should be slow, and light, and measured? No other proof is necessary to shew, how much these organs feel the influence of muscular motion in other parts of the body.

By these motions, their action and secretion is increased; the sensibility becomes elevated; obstructions are prevented; and they are endowed with strength sufficient for the vigorous performance of their functions. The best evidence, however, of the salutary effect of exercise on these important parts, is to be found in the fact, that they are uniformly healthy in the labouring and temperate classes of society; and almost always, more or less debilitated among sedentary, inactive men.

These pathological and physiological remarks are necessarily very imperfect; and to be considered only as a passing glance at a few important facts. They are sufficient, however, to show that labour and temperance, such as are taught by nature and confirmed in the Bible, and perfectly adapted to the constitution and wants of man, are at the same time, the prevention and cure of these diseases. But be it ever remembered, that the Scriptures are to be obeyed fully. "He that offendeth against this law in one point, is guilty of all;" and must suffer the consequences. Health and strength are the reward of that labour only, which bringeth out the sweat upon the brow. It is not the measured, ministerial walk, which scarcely increases the action of the heart and arteries, and leaves the skin as dry and pallid as before it was taken; not the peripatetic walk, which, while the limbs move along the earth, permits the brain to continue its learned contemplations. This is like the palliative medicine which soothes some of the symptoms, but reaches not to the cause of disease that is undermining the constitution. Cicero would never have been cured of the dyspepsia by such exercise. He doubtless took his morning and evening walk about the seven-hilled city; but his nerves were not braced by it, nor his muscles made strong. The disease still clung to him notwithstanding; the stomach still laboured at its daily task; and at last the brain refused to play its accustomed part in the system. And how was he restored? Not by medicine. He travelled to Greece; and entering the Gymnasium, he began with the lighter exercises, such as were adapted to his strength; and gradually progressed to the higher

and more difficult, until at the end of two years, he acquired a degree of strength and agility, which would doubtless astonish the feeble men of our generation.

The true secret consists in adopting such a system of exercise, as calls upon the muscles for that amount of action, which, for the time, will suspend the work of the mind. The arrangement should be such, as will cause the labours of the body and mind to alternate each other. By this, the body is invigorated; and the brain obtains that repose, which enables it to bring new strength and activity to its task.

Such were the gymnastic exercises of the ancients. Such are the plays and games of youth. The system of manual labour adopted by the Mechanical Association of this Seminary, recognises this great principle. The mind will be effectually closed against the entrance of Greek and Hebrew, and attempt in vain the arrangement of a sermon or learned essay, while the hands are vigorously moving the saw and the plane, or actively occupied in turning the great wheel. We would earnestly recommend it to all, who are able to avail themselves of its advantages. Among others, it is regular, which is one half of the benefit of exercise to a student. It may be pursued in winter and on the most inclement days, when every thing, within and without, presents strong temptations to the neglect of this duty.*

* The Mechanical Association of Andover Theological Seminary, was first established in 1827. The object of it, as stated in the constitution, is "the promotion of health and vigour both of body and mind, by a regular system of mechanical exercise." The plan was viewed with so much favour by the Trustees of the Seminary, that in the following year they caused a large four-story building of rough granite to be erected, of which the Association have the use free of rent. This affords room for about seventy work-benches, which are usually all occupied. The work done is for the most part joiner's and cabinet-maker's work. The shop is furnished with the necessary tools to the value of about one thousand dollars; which was contributed by friends of the Seminary, and for three-fourths of which the Association is indebted to the munificence of the Hon. Wm. Bartlet, one of the venerable founders of the Seminary.

The Association stands under the direct supervision of the Trustees of the Seminary; no alteration can be made in the constitution without

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But in urging this, let me not be understood to exclude other modes of exercise ; especially walking, which is the most natural and the most perfect exercise. It brings all the muscles of the body into action, especially those of the lower limbs ; it aids materially in promoting the circulation of the blood in the minute vessels ; and besides this, it affords the advantage of pure air, which is indispensable to health.

Every man whose profession subjects him to sedentary habits, should devote daily, at least *an hour and a half* to manual labour, and *an hour* to exercise in the open air. This will be sufficient for the purposes of health ; and there are few men, who, with a proper economy of time, will not be able to deduct it from the hours of study. This is a general rule, however, which must be varied according to the circumstances of each individual. Every man cannot effect as much at first, especially if he has been unaccustomed to labour. But there are very few, perhaps none, who may not gradually habituate

their assent ; and should the Association ever be dissolved, all the property then in its possession reverts to the Trustees. The Association has no funds ; all the expenses of stock &c. being paid out of the avails of the labour. Whatever there may be of profits at the close of the year, is divided among the members ; but hitherto no dividend has been larger than between three and four dollars.

A superintendent of the workshop is employed, a practical mechanic, whose duty it is to make all purchases of stock and sales of the work. But his chief business is, to plan and prepare work for the shop ; so that every student, on arriving at his place, may find his task before him, and be able to begin his labour at once, without loss of time. It is regarded as a very important principle in the management of the institution, in order to secure the highest utility of it, that every student, when in the shop, shall be fully and actively occupied ; and when out of the shop, shall have no further care nor thought about it. At present, the time spent in labour is daily three quarters of an hour before dinner, and the same interval before evening prayers. There are a number of monitors ; and every person who is absent or comes in late, is subjected to a small fine. The Association is open to all members of the Seminary, so far as there is room ; and any member may leave it at pleasure.

The effect of this institution upon the general health of those who have been connected with it, has hitherto realized the highest expectations of its patrons.

EDITOR.

themselves to do this and more with perfect ease. Exercise should always be proportioned to the powers of the individual, and never carried to such excess as to occasion pain and extreme fatigue ; otherwise, instead of being salutary, it may prove injurious. Many persons, through injudicious management, fall into serious error upon this subject. Unaccustomed to manual labour, they commence too violently ; and attempting too much at once, they weary the muscles and render them painful. Deceived by this transgression against the laws of the system, they conclude that they are exceptions to the general rule ; that exercise, however important to others, is not only unnecessary, but even injurious to them. The true principle is, to accommodate the efforts exactly to the existing power at the time ; to begin moderately, stopping at fatigue ; and to renew the trial daily and regularly, until the muscles acquire that degree of vigour, which enables them to perform the full task with facility. Lynch has given a rule upon this subject, which will always come within the bounds of health and safety : " The lean should exercise *ad ruborem*, and the fat, *ad sudorem*."

The most favourable time for exercise is when the stomach is neither too full nor too empty, as in the middle of the forenoon and afternoon. Violent exercise is injurious when the process of digestion is commencing, by diverting to the surface the action of the vessels, which at that time seems to be concentrated upon the stomach. Moderate exercise is useful towards the end of the process, by exciting those gentle impulses, which increase action and secretion in the organs, and thereby accelerate the process of digestion at the time when it is most liable to be sluggish.

The above remarks make it manifest, that it is improper, immediately after exercise, when the body is heated and fatigued, to fill the stomach with food. An individual thus affected, should always rest awhile, until fatigue passes off, before he eats ; otherwise, the digestive function may be essentially weakened. Intense use of the mind is also very injurious when the stomach is full. So important is the function of the stomach, that nature utters

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a voice here, which cannot be misunderstood. Her friendly warnings are seldom disregarded with impunity. The feeling of languor which comes over the system at this time, and indisposes both body and mind for action, should teach us to lay aside our labours and books ; and give to the body and the mind the repose which they require ; or, what is the same thing so far as the mind is concerned, to engage in light reading, or such occupations as demand from it no effort. The student should ever remember that man is a compound being. Elevate him as high as you will, he is, after all, only half angel, half animal. He has a brain which lifts him above the brutes ; but he has, at the same time, a stomach like them. The wants of both are imperious ; and whoever, through pride, false reasoning, or sentimentalism, attempts to render one wholly independent of the other, transgresses the laws of nature ; and will be fortunate, if disease is not the school-master that makes him acquainted with his folly.

It is a well known fact, that many studious, sedentary, deep thinking men have uniformly enjoyed good health, and lived to a very great age. This is true of a number of the most distinguished philosophers of ancient and modern times. Their names are often quoted triumphantly by the indolent, and brought forward as proofs that exercise is not necessary to studious men. A closer acquaintance, however, with the habits and circumstances of these individuals, will be sufficient to show, that the conclusion is incorrect. They are to be considered rather as exceptions to a general rule, than examples for the encouragement of indolence and neglect of duty. It is, to say no more, as unwise to regulate our conduct by an exception in this, as in other cases. Most of these men owe their fame to uncommon talent, such as falls to the lot of few. Besides, who shall say that they were not possessed of an uncommon structure of body and mind, which peculiarly fitted them for great mental labour, and the elevated station they occupied in the scientific world? The failure of other men in these same pursuits, proves that they did possess a superior structure either of body or mind. And who shall say that they would not have liv-

ed longer, and done still more good in their day and generation, if they had lived more conformably to the laws of nature ?

But be it remembered, that the very circumstances into which the genius of these men unavoidably brought them, gave to the mind, in a certain sense, that alternate labour and repose, upon which we have insisted. The objects of universal admiration, they were compelled, more frequently than most men of letters, to mingle with the world, and partake of its social amusements and occupations ; by which they obtained the very rest, which less favoured individuals must procure from other sources. They were also constantly buoyed up by the cheering stimulus of success ; the natural consequence of which, is freedom and elasticity of mind. They were distinguished, also, for cheerfulness and contentment ; the result in part, no doubt, of the pure pleasures of philosophy and religion ; but still more of a peculiar natural temperament of body and mind. The testimony of the venerable Holyoke, and many other aged men, teaches us, that nothing contributes so much to health and long life, as contentedness of disposition, and a subdued state of the passions. They constitute an almost never-failing evidence of a sound stomach and easy digestion.

No man is authorized to neglect physical education, and quote Newton as an excuse for it, unless he has first well ascertained that the Creator has given him equal talents, and endowed him with the same temperament of body and mind. Above all, before he comes to such a conclusion, let the clergymen call to mind the story of little Diamond ; and substituting a bundle of sermons for the mathematical problems, ascertain whether his spirit could endure the same cruel test, and remain equally unruffled. Whoever contemplates the injurious action of the passions upon the stomach, and remembers the kind exclamation of the distinguished "Prince of Philosophers" on this memorable occasion, will find, if I mistake not, a fact conducing to health and long life, more safe to imitate, than his neglect of exercise and his literary watchings.

It appears from what has been said, that the eventful period in which our lot is cast, requires of every man who would be faithful in his day and generation, unusual mental exertion, and consequently, is attended with peculiar dangers. That this high duty cannot be fulfilled, and these dangers averted, without adopting such a course of life as will produce health of body and strength of mind. That the word of God, amply confirmed by the structure and uses of the body and a knowledge of its diseases, by the history of ancient and the mournful experience of modern times, teaches us, that this desirable state cannot be obtained, without the adoption of habits of daily, regular, systematic exercise, upon such principles as are consistent with, and conformable to, the laws of the animal economy. That the neglect of this is one of the principal causes of the disorders which commonly afflict sedentary men; and that a strict observance of it, is one of the principal means, both of prevention and cure. It appears also, that the apparent exceptions to this rule, will be found, on accurate examination, to be clear, though indirect confirmations of its truth.

In conclusion, let me solemnly urge upon you individually, the duty of a faithful investigation of this, and all the branches connected with the subject of physical education. It is a subject of vital importance to the church; and cannot be neglected by those to whom its interests are confided, without incurring a responsibility for all the evils which may follow such neglect. The body, as well as the mind, was given to be cultivated for the glory of the Creator. "Know ye not, brethren, that your bodies are the temples of the living God?" And shall the temples of God be permitted to decay through negligence or sloth, and no guilt be incurred? Health is a talent intrusted to our care, which cannot with impunity be buried in the earth. He who squanders it, throws away a treasure of inestimable value, and will be answerable for the consequences. For every opportunity of doing good which is thus lost, for every degree of activity of which it deprives him, and for years of usefulness of which the church is thus deprived, he must be called

to give a solemn account. How much sin does he accumulate, who, having enlisted as a soldier or leader in the cause of Christ, renders himself, by neglect, wholly or in part unfit for duty ! Who can calculate his guilt, or estimate the vast amount of good, which he might otherwise have effected. At the day of judgment, I fear it will appear, that many who thought they were doing God service, were robbing the church, and defeating the purposes of Heaven, by shortening the life, and impairing the powers, which had been bestowed for their advancement.

The clergy often reprove their hearers for indifference and neglect, while listening to the most solemn truths. The principles which I have attempted to set forth in this discourse, when considered in all their possible relations to the great cause of Christian benevolence, are very solemn truths. May I not then call upon them, on this occasion, to practise as well as hear ; and to beware lest they also fall into the condemnation of those, who are " hearers only and not doers of the word !"

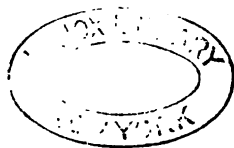
It is a favourite habit of the preacher, after having declared the words of truth and soberness, to throw off the responsibility from himself to the sinner. Perhaps the momentous consequences depending upon the neglect of this subject, may authorize me to do the same. I have declared to you the words of truth and soberness. " I speak as unto wise men ; judge ye what I say."

AN INQUIRY
INTO THE
STATE OF SLAVERY
IN
ANCIENT GREECE.

BY B. B. EDWARDS, Esq.

EDINBURGH:
THOMAS CLARK, 38, GEORGE STREET.

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AN INQUIRY
INTO THE
STATE OF SLAVERY
IN
ANCIENT GREECE.

THERE has not been any attempt, within our knowledge, to investigate thoroughly the condition of Grecian Slavery.* The ancient historian, for the most part, concerned himself only with the free-born citizen. He had in general no sympathies to expend in behalf of the great prostrate multitude who toiled and died unseen. We have allusions, incidental notices, paragraphs scattered here and there in the long records from Hesiod down to the historians of Byzantium. The thoughtful tragedian sometimes drops a tear for the poor slave, and the comic poet raises a laugh at his expense, but no Xenophon was found to lift the curtain and detail the features of that system, which deprived at least two-thirds of the population of Greece of all political importance, and in a great measure, of happiness itself. In the following pages we propose to collect and embody such facts and notices as a somewhat patient examination of Greek writers has brought to our knowledge.

* The German work of Reitemeier excepted, which we have not been able to procure. So far as we know, he is the only author who has written formally on the subject.

Greece, in its early days, was in a state of perpetual piratical warfare. Cattle as the great means of subsistence, were first the object of plunder. Then, as the inhabitants, by degrees, engaged in agricultural pursuits, men, women, and children were sought for slaves. A sea, which has innumerable islands and ports, offered powerful incentives to piracy. Perhaps the conduct of the Phenicians towards the uncivilized nations, among whom the desire of gain led them, was not always the most upright or humane. Hostilities would naturally ensue; and hence might first arise the estimation of piracy, which was a fruitful source of slavery, and long prevailed among the Greeks as an honourable practice.

From the general account of the polity of the island of Crete, furnished by Plato and Aristotle, we find that Minos established his system upon two principles; that freemen should be all equal; and that they should be served by slaves. The soil was cultivated by the slaves on the public account; the freemen ate together at the public tables, and their families were subsisted from the public stock. While a comparatively small society lived in freedom and honourable leisure, a much larger portion of the human race was, for their sakes, doomed to rigid and irredeemable slavery. In the same manner, without doubt, the early inhabitants of Sicyon, Corinth, Argos, and other cities, were unhappily divided.

In Homer, we find many allusions to manners and customs growing out of a state of slavery. "These are the evils," we are told in the *Iliad*, "that follow the capture of a town; the men are killed; the city is burned to the ground; the women and children of all ranks are carried off for slaves."* "Wretch that I am," says Priam, "what evil does the great Jupiter bring on me in my old age! My sons slain, my daughters dragged into slavery; violence pervading even the chambers of my palace; and the very infants dashed against the ground in horrid sport of war."† In the *Odyssey*, we discover

* Τίπτα δὲ σ' ἄλλοι ἄγουσι, βαθυζώνους τε γυναῖκας. II. IX. 594.

† ——— ἱλυσσίδεας τε θύγατρες, II. XXII. 62.

many allusions to the institution of slavery. The directions which Penelope's housekeeper gives are as follows: "Go quickly, some of you sweep the house and sprinkle it, and let the crimson carpets be spread on the seats; let others rub well the tables with sponges, and wash carefully the bowls and cups. Some of you go instantly to the fountain for water."* No less than twenty went on this errand. The whole number of maid-servants was fifty; not all, however, employed in household business; for we find fifty also forming the establishment of Alcinoüs; of whom some, says the poet, ground at the mill, and some turned the spindle or threw the shuttle. Men-servants waited at meals; and those of Ulysses' household are described as comely youths, well clothed, and always neat in their appearance. Servants of both sexes seem to have been all slaves. It was praise equally for a slave and a princess to be skilful in the business of spinning, needle-work, and the loom. The princess Nausicaæe, the beautiful daughter of the king of Phaeacia, went with the female slaves, in a carriage drawn by mules, to a fountain, in a sequestered spot, at some distance from the city, to wash the clothes of the family.

In estimating the happiness of the heroic ages, we must take into account its extreme instability, arising in part from the institution of slavery. Hence there is a melancholy tinge widely diffused over the poems of Homer.† He frequently adverts in general terms to the miseries of mankind. That earth nourishes no animal more wretched than man, is a remark which he puts into the mouth of Jove himself. His common epithet for war is "tearful," (*δακρυόεις*). He seems to have had some knowledge by tradition, or otherwise, of a period when slavery did not exist; an idea to which Herodotus alludes, and Plutarch also in his life of Numa.

Though there were many slaves in the days of Homer, yet their number was afterwards greatly increased. At one time in Argos, they assumed the reigns of govern-

* *Odyssey*, XX. 149.

† See *Odyss.* IV. 93, VIII. 523, XI. 621, XVIII. 129.

ment, and executed all the affairs of state, till the sons of those who had been slain, arriving at adult age, obtained possession, and expelled the slaves. The latter retired to the fortress Tyrinthe which they had seized; a serious war followed. After suffering severe losses, the Argians were finally victorious.* The Ionian colonies on the coast of Asia Minor were supposed to furnish remarkably fine slaves. Atossa, queen of Darius, urged that monarch to make war on the Greeks, in order that she might have some Ionian female slaves. When the inhabitants of Coos, says Athenaeus, sacrificed to the gods, they allowed no slaves to be present.† In the early history of Macedonia, we find that great vassals of the crown held extensive lordships, in the inland country, with a princely authority; bearing evident analogy in office and dignity to the barons of Europe in the middle ages. In later times, also, the Macedonian constitution appears to have borne a near resemblance to that of the European kingdoms in the sixteenth and seventeenth centuries; when the combined civil and military powers were divided among lordships, dukedoms, earldoms, and baronies. Lordships and townships together acknowledged the sovereignty of one king; especially his right to command their service in arms for the common defence. Slaves existed among them, but less numerous than in the republics, and in a more mitigated condition. The people of all ranks above slavery, in cities and throughout the country, held the important right of judgment on life and death, and of bearing arms for common defence against foreign and domestic disturbers of the common peace.‡

In Thessaly, the Penests, so called from their poverty, (πένης, πένεσις) were the descendants of the people of the neighbouring countries, conquered and enslaved by the Thessalians, and were frequently formidable to the government. They were most commonly occupied in cultivating the lands of their severe masters. In their

* Herodotus, Erato, 63.

† Athenaeus, Bâle ed. 1535, p. 131.

‡ Mitford's Greece, Vol. VII. p. 191.

employments, numbers, and continual disposition to revolt, they agreed with the Lacedemonian Helots.* They first revolted in the wars of the Thessalians with the Achæans, Perræbians, and Magnesians. Aristotle mentions that the island of Aegina, at one time, contained 470,000 slaves. This statement seems to be correct, though it has been called in question by Hume. A learned German, C. O. Müller, has accurately determined the area of Aegina, from Gell's map of Argolis, and made it 42 square miles English; thus increasing the possibility of a large slave population, especially, if we assume, as is probable, that Aegina, in early times, had possessions on the coast of Argolis. The naval dominion of the island, and its powerful assistance to others, are incompatible with a small population. Slaves never occupied much room. Aegina received supplies from the countries on the Black sea, as well as the Peloponnesus, and particularly from Corinth†.

Timæus asserts that Corinth had 460,000 slaves, in early times, before Athens had obtained possession of the commerce of Greece and the sovereignty of the seas. That the Corinthians kept a very large number of slaves, is proved by the expression, *choenix-measurers*, by which they were distinguished.‡

There are different accounts of the origin of the Helots at Sparta, who were distinguished from other slaves by name as well as condition. The common opinion is that Helos, whether an Arcadian town or a rebellious dependency of Lacedaemon is not agreed, being taken by Soüs, son of Procles, king of Sparta, the inhabitants were, according to the practice of the times, reduced to slavery; and were dispersed in such numbers over Laconia, that the name of Helot prevailed in that country as synonymous with slaves. It appears probable, however, that the Lacedemonians, as well as all the Peloponnesian

* Aristotle's Pol. b. II. Athenæus, 6, 18. Eurip. Herac. 639. Gillie's Greece, Vol. I.

† See Augustus Boeckh's Public Economy of Athens, 1828. Vol. I. p. 55.

‡ *Χοινομέτραι*. A *χοῖνιξ* held somewhat more than a half gallon.

Dorians, had slaves of Grecian race before the reign of Soüs ; and we know that after it they reduced numbers of Greeks to that miserable state. But the institutions of Lycurgus must necessarily have occasioned a considerable alteration in the condition of Lacedemonian slaves. For as husbandry and all mechanical arts were to be exercised by them alone, their consequence in the state was considerably increased ; but as private property was nearly annihilated, every slave became, in a great degree, the slave of every freeman. In proportion as their consequence increased, it became necessary to look upon them with a more jealous eye ; and thus every Helot was watched by thousands of jealous masters.* The cruelty of the Lacedemonians towards the Helots is frequently alluded to by many authors, though Plutarch, who was a great admirer of the Spartans, endeavours (inconclusively) to palliate it. These poor wretches were marked out for slaves in their dress, their gestures, in short, in every thing. They wore dog-skin bonnets and sheep-skin vests ; they were forbidden to learn any liberal art, or to perform any act worthy of their masters. Once a day they received a certain number of stripes, for fear they should forget they were slaves. To crown all, they were liable to the horrible *cryptia*, (*κρυψία*) *ambuscade*. The governors of the Spartan youthful freemen, ordered the shrewdest of them, from time to time, to disperse themselves in the country, provided only with daggers and some necessary provisions. In the day time, they hid themselves, rested in the most private places they could find, but at night, they sallied out into the roads and killed all the Helots they could find. Sometimes, by day, they fell upon them in the fields, and murdered the ablest and strongest of them. Thucydides, in his history of the Peloponnesian war, relates that the Spartans selected such of the Helots as were remarkable for their courage, to the number of 2000 or more, declared them free, crowned them with garlands, and conducted them to the temples of the gods ; but soon after they all dis-

* Mitford, Vol. I. p. 279.

appeared, and no one could, either then or since, give account in what way they were destroyed. Aristotle says that the Ephori, as soon as they were invested with their office, declared war against the Helots, that they might be massacred under pretence of law. In other respects, they treated them with great inhumanity; sometimes they made them drink till they were intoxicated, and in that condition led them into the public halls, to show the young men what drunkenness was. They ordered them to sing mean and disgraceful songs, and to engage in ridiculous dances, but not to intermeddle with any thing graceful or honourable. When the Thebans invaded Laconia, and took a great number of Helots prisoners, they ordered them to sing the odes of Alcmon, Terpan-der and others; but the Helots excused themselves, alleging that it was forbidden by their masters.* Plutarch endeavours to prove that the cruelty practised upon the Helots was not introduced by Lycurgus. He thinks that the *ambuscade*, particularly, had its origin in the fact that the Helots joined with the Messenians, after a terrible earthquake, which happened about 467 B. C., whereby a great part of Lacedaemon was overthrown, and in which above 20,000 Spartans perished. But Aelian affirms expressly that it was the common opinion in Greece, that this very earthquake was a judgment from heaven upon the Spartans for treating these Helots with such inhumanity.† The truth is, that the institutions of Lycurgus made slavery indispensable. The passion for military glory was universal. Sparta was one great camp. One of the principal curses (privileges, says Plutarch) which Lycurgus procured his countrymen, was the enjoyment of leisure, the consequence of his forbidding them to exercise any mechanical trade. The Helots tilled the ground, and were answerable for its produce. Lycurgus introduced an unnatural state of society, and slavery was one of its products. He had a model, however, in the institutions of Crete, Egypt, and other countries, where

* Plutarch, Life of Lycurgus.

† Aelian, Hist. Varior. I. 3.

military men generally belonged to the nobility, and were a distinct order from the husbandmen, mechanics, &c. The actual number of the Helots was not far, we believe, from 400,000. That it was large, and at times, very formidable, is the unanimous testimony. Their ranks, though constantly thinned by war and the horrible cruelties of their masters, were frequently replenished by the subjection of new tribes. By the conquest of Messenae, a large number of wretched captives were forced into the condition of Helots.

Of the slavery which existed in Attica and Athens, we have more definite information. According to the accurate map of Barbié du Bocage, which is attached to the Travels of Anacharsis, the area of Attica, with the two islands, Salamis and Helena, amounts to about 874 square miles. Xenophon says that the Athenians were equal in number to all the Boeotians, that is the citizens of the one country to the citizens of the other. The whole population of Attica would be known, if we could separately ascertain the number of the citizens, resident aliens, and slaves, together with their wives and children. On an occasion of a distribution of corn, which, like all other distributions, was made according to the register of the adult citizens of eighteen years of age and upwards, a scrutiny was instituted in the archonship of Lysimachides, Olymp. 83, 4, into the genuineness of their birth (*γνησιότης*.) There were then found, according to Philochorus, only 14,240 genuine citizens; and 4760, who had assumed the rights of citizens unjustly, were in consequence sold as slaves. Previously, therefore, there were 19,000 persons, who passed for citizens. After the breaking out of the Peloponnesian war, besides 13,000 heavy armed infantry (*ὀπλίται*) there were also 16,000 others in Athens, who consisted of the oldest and youngest citizens, and a certain number of resident aliens; the number of citizens must therefore at that time have been higher. An enumeration of the people was effected by Demetrius Phalereus, when archon at Athens, in Olymp. 117, 4, and yielded, according to Ctesicles, 21,000 citizens, 10,000 resident aliens, and 400,000 slaves. From this very im-

portant statement, the whole number of the population of Attica has been variously estimated. According to the usual rule of statistics, the adults have been generally taken as a fourth part of the population. This would give for the citizens 84,000, the aliens 40,000, and the slaves 400,000. Sainte Croix erroneously adds 100,000 children to the number of slaves; they were doubtless reckoned in the 400,000.* With regard to the total

* "According to one interpretation of a passage in Athenæus, there were twelve slaves to each free person, in Athens: while Hume, on the other hand, would reduce the proportion rather below two to one. The precise number of the slaves is intended to be given, by Athenæus; but it has been disputed, whether 400,000 or 40,000 is the true reading of the text. 21,000 only is set down for the free citizens, and it is uncertain, what description of persons was meant to be included. Wallace observes, that if there were 21,000 male adults, the free citizens, of all ages and sexes, may have amounted to 124,000, [84,000?] if we allow a wife and two children to each male; or to 186,000, [126,000?] if we calculate each family as consisting of six persons. If the number of slaves, given by Athenæus, applied merely to the males of full age, it would make the whole slave population amount to 1,600,000; at the former rate of computing their families. This would certainly be an over-estimate: but taking the adult male slaves at 40,000, and allowing four persons to each family, we obtain a total of 160,000, or nearly two slaves to one free person. Beaufort is of opinion, that 400,000 was the true number of slaves: and Wallace considers, that Athenæus intended to reckon them in a mass. Millar says, very justly, 'that in this enumeration of the freemen, none but the heads of families are included, and in that of the slaves, every individual is comprehended; for an account of the former would probably be taken, with a view to the taxes imposed upon each head of a family, and the latter, it is most likely, would be numbered like cattle, in order to ascertain the wealth of each proprietor.' Hume observes, that the defection of 20,000 slaves, in the Decelian war, would not have affected the Athenians so severely as Thucydides says it did, had that number been but a 20th of the whole servile class; and that Xenophon, in proposing the maintenance of a body of 10,000 slaves, for public service, speaks of the whole number of slaves, in a way not reconcilable with the large estimate of Athenæus. Yet, as the Athenians did not, generally, like the Romans, keep great retinues of useless slaves, but had employment for most of them, the loss of 20,000 must have caused very serious inconvenience.

It is rather surprising, that Potter takes the whole free population of Athens to be included in the 21,000; while he throws no

amount of slaves, it is stated too much in round numbers to be entitled to perfect confidence. It will be sufficient to reckon 365,000 slaves, including women and children ; and the whole population at 500,000 ; of whom the larger proportion were men, since fewer female than male slaves were kept, and not all the slaves, by any means, were married.

doubt on the number of slaves being 400,000—there being, thus, a proportion of nineteen slaves to one free person. Most of the recent writers, who have discussed the populousness of Attica, concur in opposing the view of Hume ; although they differ with each other in minor details. Sainte Croix estimates the inhabitants of Attica, in the time of Demetrius Phalereus, (cxvii. Olympiad, B. C. 309,) as follows :—94,500 free citizens, 45,000 strangers, and 500,000 slaves—making a total population of 639,500 souls. Boeckh reckons 90,900 free Athenians, 45,000 aliens, and 365,000 slaves, which gives a total of 500,000. M. Letronne, rejecting the authority of Athenæus, and relying upon a passage in Xenophon, for the amount of the servile classes, thinks the whole population of Attica did not exceed 220,000—of which not more than 110,000 were slaves : but the anonymous translator of Boeckh points out, very satisfactorily, the error into which Letronne has fallen, with respect to the meaning of Xenophon in the place referred to. Mr. Clinton, in his *Fasti Hellenici*, [year, B. C. 317,] reckons the entire population of Attica, as then registered, about 539,500 ; taking Athenæus for his authority : and, in his second edition, adds a passage from Hyperides, which, if not corrupt, would seem decisive on the point in dispute, as it states the number of slaves employed by the Athenians in the fields and mines alone, to amount to 150,000.

The low price of slaves at Athens affords a strong proof that they were numerous, as we cannot doubt, that they were in demand.

We should hesitate a little to admit, without limitation, the statements of Athenæus, as to other nations of Greece. He says, the Arcadians had 300,000 slaves, which may be nearly true : but we can scarcely suppose, that the Corinthians had 460,000, and the Republic of Egina 470,000 ; if the numbers are accurate, we must presume them to include slaves imported for sale, as well as those retained permanently, by the inhabitants, for their own service. However, at the battle of Platea, were present 5,000 Spartans, each accompanied by seven slaves—according to Herodotus. Man- so, in his learned work on Sparta, thinks the slaves there amounted to more than 300,000, and were all Helots. He also informs us, that the number of Helots was estimated at no less than 800,000, by Reitemeier, in his history of slavery in Greece.”—*Blair's Inquiry into the State of Slavery among the Romans*. Edin. 1833.

The proportion of the free inhabitants to the slaves can consequently be taken as 27 to 100, or nearly as one to four. In some of the American sugar plantations it has been as one to six. This number of slaves cannot appear too large, if the political circumstances of Attica are taken into consideration. Even the poorer citizens used to have a slave for the care of their household affairs.* In every moderate establishment many were employed for all possible occupations, such as grinders, bakers, cooks, tailors, errand-boys, or to accompany the master and mistress, who seldom went out without an attendant. Any one who was extravagant and wished to attract attention, took perhaps three attendants with him.† We even hear of philosophers, who kept ten slaves. They were also let out as hired servants; they performed all the labour connected with the care of cattle and agriculture; they were employed in the working of mines and furnaces; all manual labour and the lower branches of trade were in a great measure carried on by them; large gangs laboured in the numerous workshops for which Athens was celebrated; and a considerable number were employed in the merchant vessels and the fleet. Not to enumerate many instances of persons who had a smaller number of slaves, Timarchus kept in his workshop 11 or 12;‡ Demosthenes' father 52 or 53, besides the female slaves in

* See the beginning of the *Plutus* of Aristophanes.

† Demosthenes, *Oratio* for Phorm.

‡ Aeschin. in Timarch.

“At Athens, we do not often find a great number of slaves, possessed by any one individual. Timarchus, who had but ten slaves employed in manufactures, is said, (by Aeschines,) to have been in easy circumstances. Lysias, and his brother, who were proscribed by the thirty tyrants, for their riches, had but sixty slaves each. Demosthenes says of himself, that he was left rich, although with only fifty-two slaves; and calls his establishment, where twenty of these worked as cabinet-makers, [*καλινεποιον*] a very considerable manufactory. One proprietor, (Philemonides) had 300 slaves; and another, (Hipponicus) had 600; and Nicias, who seems to have been the greatest slave-holder, possessed above 1000; as he had that number employed in the mines alone: but these are remarkable instances, and bear no comparison with many Roman households.”—*Blair's Inquiry*.

his house; Lysias and Polemarchus 120.* Plato expressly remarks that the free inhabitants had frequently 50 slaves, and the rich even more.† Philemonides had 300, Hipponicus 600, Nicias 1000 slaves in the mines alone.‡ Suidas on the word ἀπερφηφίστατο mentions that the slaves employed in the silver mines alone and in country labour, amounted to 150,000. But Hume raises an objection on this number out of Xenophon. Xenophon proposed to the state to buy public slaves for the mines, and particularly mentions how large a revenue the state would receive from them, if it had 10,000 to begin with, remarking at the same time, “that the mines are able to receive many times this number, every body will allow, who remembers how much the slave-duty produced before the occurrences at Decelea.” From this statement Hume infers that the number cannot have been so large, for that the diminution by the war of Decelea only amounted to 20,000,§ and the increase of 10,000 does not stand in any considerable proportion to so large a number as 400,000. It must, however, be considered that after the war of Decelea the Athenians probably ceased to keep so many slaves on account of the facility of escape, and that a still greater number than ran away may have been dismissed. Xenophon himself proves that the mines of which he has been speaking could have afforded employment to many times 10,000.||

In what manner this population of 500,000 souls, in Attica, was distributed, cannot now be accurately known. Athens itself contained above 10,000 houses. There were besides, lodging-houses inhabited by several families, and manufactories containing many hundreds of slaves. If 180,000 are reckoned for the city and harbours, and 20,000 for the mines, there then remain 300,000 souls for the other 608 square miles in Attica, which gives something less than $493\frac{1}{2}$ to a square mile, which, with

* Demosthenes in Aphob.

† Plato, De Republica, IX.

‡ Xenophon, De Vectigal.

§ Thucyd. VII. 27.

|| Boeckh, Public Economy of Athens, Vol. I. p. 53.

the numbers of small market-places, villages, and farms that were in Attica, is not be wondered at.

The servants at Athens were of two sorts; the first were those, who, through poverty, were forced to serve for wages, being otherwise free-born citizens, but not possessing any suffrage in public affairs, on account of their indigence, it being forbidden at some times, that persons not having such an estate as was mentioned in the law, should have the privilege of giving their voices. These were properly called *Θῆται*, and *πλάται*, and were the most genteel sort of servants, being only in that condition during their own pleasure and necessities, and having power either to change their masters, or if they became able to subsist by themselves, wholly to release themselves from servitude. The other kind of servants were properly *slaves*, wholly in the power of their masters, who had as good a *legal* title to them as to their lands or beasts of burden. What greatly enhanced the misery of their condition was, that they had little hopes of recovering their freedom themselves, or of procuring it for their posterity. All the inheritance they could leave their children, for their masters encouraged them to marry, was the possession of their parents' miseries, and a condition but a little superior to that of beasts.

The following were the methods in which they were reduced to this deplorable bondage. First, from poverty: men being unable to subsist of themselves, and perhaps deeply in debt, were forced to part with their freedom, and yield themselves slaves to such as were able to maintain them. Secondly, vast numbers were reduced to slavery by the chance of war, by which the vanquished became wholly at the disposal of the conquerors. Thirdly, by the perfidiousness of those who traded in slaves, who often stole persons of ingenuous birth and education and sold them. Plato and Diogenes were sold as slaves. Aristophanes informs us that the Thessalians were notorious for this species of villany :

———“ Whence will you get slaves ? I'll buy them with money.
But where ? for all the merchants leave off sale,

Being sufficiently enriched? Driven by hope of more gain,
The slave-dealer will come here from Thessaly."^{*}

Fourthly, sale of slaves by the public authority. The father of Bion, the philosopher, was sold, together with his whole family, for an offence against the laws of the custom-house, though this did not take place at Athens.

At Athens, when a slave was first brought home, there was an entertainment provided to welcome him to his new service, and certain sweet-meats were poured upon his head. This ceremony was not practised elsewhere, though in all countries slaves were bought and sold like other commodities. The Thracians are particularly remarkable for purchasing them with salt.[†] The Chians, whose slaves, according to Thucydides, were very numerous and were treated with severity, insomuch that on one occasion they revolted in great numbers to the Athenians,[‡] are reported to have been the first who gave money for slaves. Previously they had been exchanged for other commodities, which was the ancient way of trading before the invention of money. Homer's heroes are often said to have exchanged their captives for provisions.[§]

The following were some of the legal enactments respecting slavery, which were in force at various times at Athens. Persons of the meanest sort shall be capable of no magistracy. Let no person, who is a slave by birth, be made free of the city. They only shall be reckoned citizens whose parents are both so. He shall be looked on as illegitimate, whose mother is not free. No illegitimate persons shall be obliged to keep their parents. No slave shall presume to anoint, or perform exercises in the palaestra. No slave or woman, other than free-born, shall study or practise physic. No slave shall caress a free-born youth; he who does so, shall receive publicly fifty stripes. He that beats another man's servant, may have an action of battery brought against him. No one may sell a captive for a slave, without the consent of his

^{*} Aristoph. Plut. Act II. Scene 5.

[†] Therefore they were called *πρὸς ἄλλος ἡγορασμίνα*.

[‡] Thucyd. Hist. VIII. 48.

[§] See the end of the seventh book of the Iliad.

former master. If any captive hath been sold, he shall be rescued, and let his rescuer put in sureties for his appearance before the polemarch. If the freedom of any slave hath been unjustly arrested by another, the arrester shall be liable to pay half the price of the slave. Any slave, unable to drudge under the imperiousness of his master, may compel him to let him quit his service, for one more mild and gentle. Slaves may buy themselves out of bondage. No slaves are to have their liberty given them in the theatre; the crier that proclaims it shall be *infamous*. All emancipated slaves shall pay certain services and due homage to the masters who gave them liberty, choosing them only for their patrons, and not be wanting in the performance of those duties to which they are under obligation by law. Patrons are permitted to bring an action of ἀποράσιον against such freed slaves as are remiss in the fore-mentioned duties, and reduce them to their pristine state of bondage, if the charge be proved against them; but if the accusation be groundless, they shall completely enjoy their freedom. Any who have a mind, whether citizens or strangers, may appear as evidence in the above-mentioned cause. He that redeems a prisoner of war, may claim him as his own, unless the prisoner himself be able to pay his own ransom. Maintenance is by no means to be given to a slave careless in his duty.*

The Greeks were very industrious to prevent and suppress all such inclinations in slaves as would lead them to desire liberty. In general, they kept them at a great distance, by no means condescending to converse familiarly with them; instilling into them a mean opinion of themselves; debasing their natures, and extinguishing in them, as far as possible, all feelings of generosity and manliness by an illiberal education, and accustoming them to blows and stripes, which they thought were very disagreeable to high-born souls. The following facts will show the general influence of slavery, according to the common practice of the greater part of the cities and tribes of Greece. It

* See the first volume of Potter's Greek Antiquities, pp. 144—182 passim. London ed. 1795.

was accounted insufferable for slaves to imitate the conduct of a freeman, or offer to be like him, in their dress or in any part of their behaviour. In those cities, where the free inhabitants permitted their hair to grow long, it was an unpardonable offence for a servant to have long hair.* They had a peculiar form after which they cut their hair,† which they laid aside, if they ever recovered their liberty. And because slaves were generally rude and ignorant, the expression, “you have slavish hair in your soul,” was generally applied to any dull, stupid fellow. A freeman’s coat had two sleeves; that of a slave but one. The slaves covered their heads with bonnets;‡ an outer garment, which they wore, reached to the knees,§ and had at the bottom a strip of sheepskin. They were subjected to degrading raileries from the stage.|| Terence, the scene of whose *Phormio* was laid in Athens, affirms that the slaves were neither permitted to plead for themselves, nor to be witnesses in any cause.¶ Yet it was customary to extort confession from them by torture; which, because it was often so violent as to occasion the death of the slave, or to disable him from being serviceable to his master, any person, who demanded a slave for this purpose, was obliged to give his master a sufficient security to answer the loss of his slave. The various modes of torturing slaves are mentioned by Aristophanes,** and other writers. The common way of correcting them for any offence was to scourge them with whips sometimes made of a hog’s bristles. A villain, who had been guilty of any crime which deserved punishment, was said *μαστιγιαῖν* to stand in need of, and as it were to itch for

* “Ἐπειτα δὴτα δούλος ὡς κίμην ἔχουσ; Aristoph. *Avibus*, 912.

† *Θριξ ἀνδραποδωδης.*

Aristoph. *Vesp.* 443.

—κατανῆκας φορεῖντας. Aristoph. *Lysis*. 1153.

Aristoph. *Acharn.* 507. Also Thucyd. lib. I.

¶ *Servum hominem causam orare leges non sinunt;*

Neque testimoni dictio est.—Terence, Phorm. Act I. Scene 4.

** ——— ἰν κλίμακι

Δήσας, κριμάσας, ὑσσεριχίδι μαστιγιαῖν, δίσων,

Στριβλῶν, ἴσι δ' ἐς τὰς ῥίνας ἔξος ἰγχιῶν,

Πλίνθους ἐπιτιθῆς,—*Ran.* v. 618.

the scourge. Sometimes to prevent their shrinking, or running away, they were tied fast to a pillar. Those convicted of any notorious offence, were condemned to grind at the mill, a labour very fatiguing in those days, when it was the custom to beat the grain into meal, our mills being the invention of later ages. When people wished to express the difficulty of any labour, it was usual to compare it to grinding in a mill.* They were also beaten with rods and scourges, sometimes, if their offence was very great, to death. Those mills were in general called *μύλωνες*, which word Julius Pollux says was unlucky, because of the cruelty inflicted upon the slaves in mills. It was usual there to examine upon the rack. It was likewise customary to stigmatize slaves, which was usually done in the forehead, as being most visible. Sometimes other parts were thus used, it being not uncommon to punish the member which had offended. Thus the tongue of a tattler was cut out. The usual way of stigmatizing was by burning the part with a red hot iron marked with certain letters, till a fair impression was made, and then pouring ink into the furrows, that the inscription might be the more conspicuous. Persons thus used were called *στυγμαρία*. Pliny calls them *in-scripti*; Plautus, *litterati*. This punishment was seldom or never inflicted upon any but slaves, and with them it was so frequent, that the Samians when they gave a great number of slaves their liberty, and admitted them to offices in the state, were branded with the infamous name of *litterati*. Among some nations, as the Thracians, Scythians, and Britons, the stigma was accounted a mark of honour. The slaves were branded with stigmata not only as a punishment for their offences, but to distinguish them in case they should run away. Soldiers were branded in the hand, but slaves on the forehead. In the same manner it was customary to stigmatize the votaries of some of the gods.†

* Tibi mecum erit, Crasse, in eodem pistrino vivendum.—*Cicero De Orat.*

† See Galatians vi. 17, τὰ στίγματα τοῦ κυρίου Ἰησοῦ ἐν τῷ σώματι μου βαστάζω, i. e. the scars of wounds which show that I belong to the Lord Jesus. See also Rev. xiv. 9. 2 Cor. xi. 23, 25.

Sometimes in war, the slaves deserted to the enemy; which, excepting theft, a crime almost peculiar to them, was the most common offence they committed, being in many places the only way which they had to deliver themselves; but if they were taken, they were bound fast to a wheel, and unmercifully beaten with whips. The same punishment was inflicted on them for theft.* They were occasionally racked on the wheel, a cruelty never practised upon a free-born person, to extort a confession from them, when they were suspected to have been accessory to any villainous design. *Tyurava* or *tyrava* were cudgels or sticks of wood, with which criminals, particularly slaves, were beaten to death. The culprit was suspended to a stake and beaten till he died.

The Greeks thought it lessened the dignity of free-born citizens to call slaves by any name that was in use among them. If any man presumed to give his slave the name of an honourable person, it was thought to be an intolerable offence. The Roman emperor Domitian is said to have punished Metius Pomposianus, for calling his slaves by the illustrious names of Hannibal and Mago. The Athenians enacted a law, that no man should presume to call any of his servants by the names of Harmodius and Aristogeiton, renowned defenders of liberty, who opposed the misrule of the two sons of Pisistratus. The Athenians were also forbidden to derive the names of their slaves from any of the solemn games. For the most part, according to Strabo, they were called after the names of their native countries, as *Λυδός* or *Συρός*, if they were born in Lydia or Syria; or by the names, which are most used in those nations, as Manes or Midas in Phrygia; Tibias in Paphlagonia. The most common names in Athens were Geta and Davus, being taken from the Getes and Daci. They seldom consisted of above two syllables, and therefore Demosthenes having objected to Aeschines, that his father was a slave, tells him further, as a proof of what he affirmed, that he had falsi-

* Non furtum feci, nec fugi, si mihi dicat

Servus, habes pretium, loris non ureris, aio.—*Hor. Epist. I.*

fied his name, calling it Atrometus, when in fact it was Tromes. The reason seems to have been the same as in the case of dogs; a short name being more easy of pronunciation. It was common for slaves who had recovered their freedom, to change their names for those of more syllables. Above all things, especial care was taken that slaves should not wear arms, which, since their number was in general altogether greater than that of the citizens, might have been dangerous to the public. On this account it was not usual for them to serve in wars.* Yet in case of extreme danger, it was allowed, and sometimes when there was no such emergency. For the maintenance of security and order at Athens there was a city guard, composed of public slaves.† These persons, though of low rank, enjoyed a certain consideration, as the State employed them in the capacity of constables. These public slaves were also appointed for the trade-police; and subordinate places, such as heralds and checking-clerks, together with other offices in the assemblies and courts of justice, were filled by persons of the same description. The public slaves composed the body-guard of the Athenians. They are generally called bowmen, or, from the native country of the majority, Scythians, or Speusinians. They lived under tents in the market-place, and afterwards on the Areopagus. Among their number were many Thracians and other barbarians. Their officers had the name of toxarchs. In the first instance, 300 were purchased soon after the battle of Salamis. The number soon rose to 1000 or 1200. These troops might, if necessary, be used in the field. As they were able-bodied men, they probably cost three or four minas a-piece, and to keep the number good, thirty or forty must have been purchased yearly, costing in all from one to two talents. Their pay was perhaps three oboli a day.‡

* ——— vix unus Helenor,

Et Lycus elapsi, quorum primaevus Helenor ;

Maeonio regi quem serva Licymnia furtim

Sustulerat, vetitisque ad Trojam miserat armis.—*Virg. Aen.* 9. 545.

† *δημόσιοι.*

‡ An obolus was a little more than 1½d. of our money; a drachma 7½d.; a mina £3, 4s. 7d.; and a talent £193, 15s.

A large number of the rowers on board the fleets were slaves. This will not be considered strange, if it be borne in mind that the Spartans brought their Helots with them into the field; that the Thessalian mounted Penestæ were bondmen; that a considerable number of slaves were always employed in war as attendants on the army, who were sometimes even manumitted; that slaves were said to have fought as early as at the battle of Marathon, and afterwards at Chaeronea, when the Athenians granted them their liberty. It is remarked as an unusual circumstance, that the seamen of the *Parolos* were all free-men.* At the successful sea-fight of *Arginusæ*, there were many slaves in the Athenian fleet;† and it equally redounds to the honour of both parties, on the one hand, that victory was chiefly owing to the slaves, and on the other, that the Athenians immediately emancipated them, and made them *Plataean* citizens.‡ A large number of slaves were considered not only as useful, but as necessary to a State which possessed a naval force. It was only on some pressing emergency that citizens were employed as rowers.

In mining, as in every thing where labour was necessary, the actual work was performed by slaves. It does not appear that in Greece, free citizens ever laboured in the mines or foundries under the compulsion of tyrants. The Romans condemned the offenders who had been enslaved, by public ordinance, to work in the mines, in the same manner that criminals of this description are now sent by the emperor of Russia to the mines of Siberia. This method of punishment cannot, however, have existed at Athens, as the community did not carry on any mining at the public expense; nor did it let mines for a term of years together with the labourers, which was only done by private individuals. The master, however, could probably punish his slaves by forcing them to labour in the mines as well as in the mills; and in general, none

* Thucyd. 8. 73.

† Xenophon, *Hell.* 1. 6, 17.

‡ Aristoph. *Ran.* v. 706

but inferior slaves were employed in them, such as barbarians and criminals. Their condition was not, indeed, so miserable as that of the slaves in the Egyptian mines, where the condemned labourers worked without intermission until they were so exhausted as to fall senseless; but notwithstanding that in Attica the spirit of freedom had a mild and benevolent influence even on the treatment of slaves, yet myriads of slaves are said to have languished in chains in the unwholesome atmosphere of the mines.* As was the case in Italy and Sicily, and has frequently been in modern times, the insurrection of these hordes of slaves was in Greece neither unfrequent, nor unaccompanied with danger. In a fragment of Posidonius, the continuer of the history of Polybius, it is related that the mine-slaves in Attica murdered their guards, took forcible possession of the fortifications of Sunium, and from this point ravaged the country for a considerable time; an occurrence which probably belongs to the end of the 91st Olympiad, about which time, during the war of Decelea, more than 20,000 slaves, of whom the greater proportion were manual labourers, escaped from the Athenians.† Of the slaves, who worked in the mines, some belonged to the lessees, and for some a rent was paid to the proprietor, the maintenance being provided by the person who hired them. The price of slaves varied according to their bodily and mental qualities, from half a mina to five and ten minas. A common mining slave, however, did not cost at Athens more than from three to six minas, and in the age of Demosthenes not more than from 125 to 150 drachmas.

When Nicias, the son of Niceratus, gave a talent for an overseer of his mines, we are to understand a person in whom he might repose entire confidence. For the most part, compulsion was the only incentive to labour, and little favour was ever shown to the slaves. By the hiring of slaves, the profit was distributed into various channels, and by this means, persons who would have

* Athen. VII. Plutarch comp. Nicias and Crassus init.

† Thucyd. 7. 27.

otherwise been unable to advance capital for so expensive an undertaking, were enabled to engage in the business.*

Slaves were generally treated at Athens with more humanity than in any other place. Under grievous oppression, they were allowed to fly to the temple of Theseus, whence to force them was an act of sacrilege. Those who had been barbarously treated by their masters, were allowed the privilege of commencing a suit at law against them. If it appeared that the complaint was reasonable, the master was obliged to sell his slave. Also, if any other citizen did them an injury, they were allowed to vindicate themselves by a course of law. It appears also from the comedies of Plautus, Terence, and Aristophanes, that they enjoyed great freedom of discourse, and had many pleasures which were denied them elsewhere. Demosthenes informs us, that the condition of a slave in Athens was preferable to that of a free citizen in some other cities; which remark, allowing for the antithesis of the orator, must have contained some truth. They were sometimes permitted to acquire estates for themselves, and to take shares in the mines on their own account. If they could procure enough to pay for their liberty, no one had any power to hinder them. Sometimes, their masters dismissed them if faithful, of their own accord. On the performance of any remarkable service for the public, the State generally took care to reward them with liberty. Yet they were not advanced to the rank of citizens without great difficulty and opposition. Slaves, as long as they were under the government of a master, were called *δούλοι*, but after their freedom was granted them, they were named *δοῦλος*, not being, like the former, a part of their master's estate, but only required to render some small services, such as was required of the *μέτοικοι*, to whom in some respects they were inferior.†

Before closing this subject, it will be interesting to in-

* See the Dissertation of Boeckh on the silver mines of Laurion in Attica, originally inserted in the Berlin Transactions.

† Potter's Antiquities, Vol. I. p. 68.

quire respecting the sentiments of some of the philosophers and authors of Greece, on the right and expediency of the institution of slavery. Alcidimas, the scholar of Gorgias of Leontium, has this remark: "All come free from the hands of God; nature has made no man a slave."* Philemon says, "Though he is a slave, yet he has the same nature with ourselves. No one was ever born a slave, though his body by misfortune may be brought into subjection."† Menander remarks, that slaves ought not to be treated unjustly.‡ Aristotle, in his *Politics*, has taken up the subject with his usual scientific nicety. "By some writers," says Aristotle, "that part of economy employed in the management of slaves, has been dignified with the name of science; by others, slavery is considered as an institution altogether unnatural, resulting from the cruel maxims of war. Liberty, they assert, is the great law of nature, which acknowledges not any difference between the slave and the master; slavery is therefore unjust, being founded on violence. But property at large is merely an accumulation of instruments, to be moved and employed for the comfortable subsistence of a family; and even a slave is in this view a moveable instrument, endowed with life, which, impelled by the will of another, communicates motion to other instruments less excellent than himself. Among the instruments subservient to the comfort of human life, there is this material distinction, that the work performed by one class, consists in production; and the work performed by another, is totally consumed in use. A domestic slave is relative to use; his labour is totally consumed in promoting the ease of his master. He is merely the possession and property, or, as it were, the separable part of that master; and every part, whether separable or inseparable, is to be employed, not according to its own caprice or humour, but in subserviency to the general good, and suitably to reason. It is to be re-

* Scholiast on Aristotle's *Rhetoric*. Gillies' *Greece*, Vol. II. p. 337.

† Fragments of Menander and Philemon, p. 226.

‡ *Ib.* 40.

garded simply in relation to that whole or system to which it appertains. A slave is simply the property of his master ; but the master stands in many other relations besides that of proprietor to his slaves. Such is the nature of servitude. We proceed to examine whether the institution be wise and just.

“ To determine this question, it will be sufficient to contemplate the ordinary course of nature, and to deduce from our observations clear inferences of reason. Government and subjection, then, are things useful and necessary ; they prevail everywhere, in animated, as well as in brute matter. From their first origin, some natures are formed to command, and others to obey ; the kinds of government and subjection varying with the differences of their objects, but all equally useful for their respective ends ; and those kinds the most excellent, from which the most excellent consequences ensue. In compositions endowed with life, it is the province of mind to command, and of matter to obey. Man consists of soul and body, and in all men rightly constituted, the soul commands the body ; though some men are so grossly depraved, that in them the body seems to command the soul. But here the order of nature is perverted.* Those men, therefore, whose powers are chiefly confined to the body, and whose principal excellence consists in affording bodily service ; those, I say, are naturally slaves, because it is their interest to be so. They can obey reason, though they are unable to exercise it ; and though different from tame animals, who are disciplined by means merely of their sensations and appetites, they perform nearly the same tasks, and become the property of other men because their own safety requires it.†

* In this passage, Aristotle's better reason seems to go beyond his theory, and the prejudices of the age in which he lived.

† But who or what shall determine the degree of servility which shall reduce one to the condition of slavery ? Who has the power or intelligence to go round with his inkhorn and brand the subject of freedom and slavery respectively ? By the adoption of the rule proposed, many of us would be called to grind in the mill. The 20,000 free Athenians might have been sadly diminished. Plato, 312

“ In conformity with these observations, nature, we see, has variously moulded the human frame. Some men are strongly built and firmly compacted; others erect and graceful, unfit for toil and drudgery, but capable of sustaining honourably the offices of war and peace. This, however, holds not universally; for a servile mind is often lodged in a graceful person; and we have often found bodies formed for servitude, animated by the souls of freemen. Yet the distinction itself is not frivolous; for were part of the human race to be arrayed in that splendour of beauty which beams from the statues of the gods, universal consent would acknowledge the rest of mankind naturally formed to be their slaves. The difference of minds, though less obvious, is far more characteristic and important; whence we may conclude that slavery is founded both on utility and justice.

“ This decision, however, has been arraigned with considerable plausibility; for slavery may be taken in two senses, in one of which he is a slave, who submits to the laws of war, commanding the vanquished to become the property of the victors. This is acknowledged to be law; but the law itself is accused of iniquity. On this subject, wise men hold different opinions. Some consider superiority as the proof of virtue. While others deny the force of this argument, maintaining that nothing can be truly just which is inconsistent with humanity. Unjust wars are often successful, by which persons of illustrious merit are reduced to slavery. To avoid this conclusion, the other party propose to limit this law to the case of barbarians vanquished by Greeks; for the nobility of barbarians is confined to their respective countries, but the nobility of Greece is as extensive as the world. But in so

Aristotle, Socrates, and a few of similar stamp, might have escaped. Besides, actual slavery never made such a separation as Aristotle indicates. The fact is wholly the reverse. There were noble men in great numbers, who were toiling on the farms of Laconia, chained to the oars of the fleets, or delving into the mines of Laurion. It was Æsop, Alcman, Epictetus, Terence, who were slaves, while many a brainless free demagogue was haranguing in the forum, or equandering the hard-earned produce of the poor slave, in the house of some fair Milesian.

doing, they abandon their own principle, and acknowledge the principles which we have established, that slavery adheres to the character itself, and is independent of accident. There are thus two kinds of slavery, the one founded on nature, the other established by law, or rather produced by violence. The first kind can take place only when the master is as fit to command, as the slave to obey.* It is then profitable both to the slave and master; whose interests, rightly understood, become as inseparable as the interests of soul and body."

It will thus be seen that the peculiarity of the relation between master and slave, results, according to Aristotle, from the superiority of character in one man over another: The sole condition seems to be, that one man knows how to command, and another knows how to obey. The author shows the mildness of his nature in his advice to masters to secure the fidelity of slaves by the pledges of wives and children, and to indulge them with the enjoyment of festivals and diversions, of which their condition stands more in need than that of freemen. In the treatment of slaves and peasants, he considered it to be exceedingly difficult to hit the middle point between the extremes of indulgence and harshness; that indulgence which is productive of insolence, and that harshness that will be repaid with hatred.

Xenophon, following the example of his master, Socrates, raises no objection against the institution of slavery. Plato, in his Republic, only desires that no Greeks may be reduced to slavery. In the sixth book of his treatise *De Legibus*, he adverts to the question of the expediency of slavery. He says that many slaves have been found superior in their kindness towards masters, to the brothers and sons of the family, practising all fidelity both in respect to persons and property. On the other hand, he says, that there seems to be nothing in the soul of a slave, which can be a foundation for trust-

* This kind of slavery would be extremely rare. It has always been found unsafe to trust men with such power as a master exercises over a slave. It almost inevitably exerts a bad effect on the master. Besides, who is to determine what men are fit to command?

worthiness, verifying the assertion of Homer, that in the day when Jupiter makes slaves of men, he deprives them of half their reason. Alluding to the instances of the Messenians and some of the Italian cities, he remarks that the slaves have caused all manner of disturbances, so that an observer considering such facts would be disposed to denounce the whole system as inexpedient and worthless. He agrees with Aristotle, that it is of the first importance, though very difficult, to preserve, in the treatment of slaves, the due medium between severity on the one hand, and indulgence on the other.

How a thinking and philosophic mind could have failed to have seen the utter incongruity between the boasted freedom of the Greek republics and the iron slavery which they tolerated, seems to us an exceedingly difficult problem. At the time when Demosthenes was uttering his words of fire to the few thousands of free Athenians, stimulating them to rise up against the aggressions of the northern tyrant, as he called Philip, there were 400,000 human beings, whose life and liberty were at the mercy of a most despotic democracy. We shall, however, cease to wonder, when we reflect on the inconsistencies of human nature. In all ages of the world, the men who have been most jealous of liberty in their own persons, have been most willing to take it from others. The boon is too sweet to be distributed. The highest zest is given to the enjoyment by contrast. The liberty coveted is that resulting from instant obedience to every species of authority, in other words, the liberty of despotism. If an ancient traveller had wished to have seen the greatest amount of solid happiness, enjoyed by *all* ranks, he must have left republican Sparta and Athens, and visited the *monarchy* of Macedon. We ought, however, to consider that the civil polity of Greece was in general so arranged as, perhaps, to render slavery indispensable. The institutions of Minos, Lycurgus, and Solon, derived doubtless in a great measure from Egypt or from some other oriental source, were in many respects fundamentally wrong. They made agriculture, manufactures, mercantile pursuits, and all the useful arts, unpopular. The free citi-

zens were intended either for soldiers, or politicians ; the latter oftentimes furnishing employment for the former. Sparta, as has been remarked, was saved by war and ruined by peace. The theory of Lycurgus, in more than one respect, was at war with the human race. He instilled a stoical fortitude into the bosoms of the Spartans; which found no opportunity for exercise, except in enduring the chances of war, or witnessing the anguish of the Helots.

In the numerous wars, which desolated, and finally, in conjunction with other causes, ruined the Grecian States, there was one signal alleviation. In the twenty-seven years of the Peloponnesian war, along with the various miseries which it occasioned, it brought very important benefits to the slaves. When all the neighbouring republics were friendly, the slave looked around in vain for refuge from the cruelty of an inhuman master ; but if they were hostile, it behoved equally the wealthy despot of many slaves, and the poor tyrant of one, to beware how he set the wretch upon comparing the risk of desertion with the hope of a better service. Even at Athens, where in general they were better treated than elsewhere, war produced regulations to soften their condition. In the comedy of Aristophanes called the Clouds, (v. 7) we find an old country gentleman of Attica ludicrously execrating the war, because he was no longer allowed to beat his slaves.

The Grecian States suffered one of the most common and pernicious evils of slavery—the absence of an enlightened and virtuous middle class ;—that part in society, which constitutes its true glory and defence. In Athens, this class of men could not be entrusted with any public office, give their votes in the assemblies, or have any share in the government. They were obliged patiently to submit to all the laws enacted by the citizens. Aristophanes compares them to chaff, as being an unprofitable and useless part of the commonwealth. The women were obliged to carry vessels of water, and also umbrellas to defend the free women from the weather. The men were taxed twelve drachmas annually, and the women six.

Upon non-payment of this tax, they were liable to be sold into slavery. Diogenes Laertius was actually sold because he had not wherewithal to pay this tribute. This was a natural effect of the institution of slavery. Almost every species of manual labour was considered degrading because performed by slaves. Emigrants, foreigners, and all those who were not citizens, were in general compelled to resort to personal labour in order to obtain a subsistence. Consequently, in the view of public opinion, they were fit subjects for oppression and insult. They stood between the slaves and freemen, and felt little sympathy for either, and in case of an insurrection, took part with the strongest. It was a grand defect in the Grecian forms of government, that they did not adequately provide for all the classes in the community. A large part of the population was cut off from all sympathy with the country. Where slaves abound, rich men can dispense with the labour of the poor, while the poor profit, in no way, from the prosperity of the rich. The consequences of this state of things form one of the most prominent features of Grecian history.

Greece was at length absorbed in the Roman empire. Subsequently, the Roman slave trade, in that part of the world, seems to have been mainly carried on at Delos. That island rose into importance, as a commercial place, after the fall of Corinth, and grew an *entrepôt* for trade of every sort, between the East and West, but principally for that of slaves. It was resorted to by the Romans more than by any other people, and the slave trade, which they encouraged, was so brisk, that the port became proverbial for such traffic, and was capable, says Strabo, of importing and re-exporting 10,000 slaves in a single day. The Cilician pirates made Delos the great staple for the sale of their captives, which was a very gainful part of their occupation. Delos ceased to be the great mart, after the Mithridatic war; and it seems probable, that afterwards the slave trade was transferred to the various ports nearest those countries, whence the slaves came; and, therefore, perhaps, to the cities upon the Euxine, to which the Romans might not have made direct voyages at an

earlier time. Corinth was long the chief slave mart of Greece, and from its situation, was likely to have much communication with the ports on the eastern side of Italy; but we meet with no authority for believing, that the Romans resorted much thither for slaves, or other commodities, before their conquest of Greece.

In the epistles of Paul to the Grecian churches, there are a few allusions to slavery. Many of the poor *choenix-measurers* of Corinth, weary and heaven laden, doubtless welcomed with great eagerness the doctrines of the gospel. Though among the foolish and weak, and despised things of that luxurious metropolis, yet God chose them; to be the freemen of the heavenly city. The instructions, which Paul gave to them were of this tenor: "Let every man abide in the same calling wherein he was called. Art thou called being a servant (*δούλος*)? care not for it; but if thou mayest be made free, use it rather: for he that is called in the Lord, being a servant, is the Lord's freeman; likewise, he that is called being free, is Christ's servant. Ye are bought with a price; be not ye the servants of men. Brethren, let every man wherein he is called, therein abide with God."* The exhortation which Paul gives to the Thessalonians respecting manual labour, shows what class of the community he was addressing.† The same apostle directs Titus, who had been left in Crete, where peasants and slaves, bearing the name of Periaeci, Clarotae, and Mnoitae, had existed from the earliest times, to "exhort servants to be obedient unto their own masters, and to please them well in all things; not answering again, but showing all good fidelity; that they may adorn the doctrine of God their Saviour in all things."‡ The apostle here adverts to those vices, to which slaves in all ages, have been peculiarly addicted—pilfering and petulance. The maid at Philippi, who had the spirit of divination, or of a soothsaying demon, and who was very profitable to her masters, was doubtless a slave.§

* 1 Cor. vii. 20—24.

† 1 Thess. iv. 11. 2 Thess. iii. 10, 11, 12.

‡ Titus ii. 9, 10. also Aristotle's Politics, book 2.

§ Acts xvi. 16.

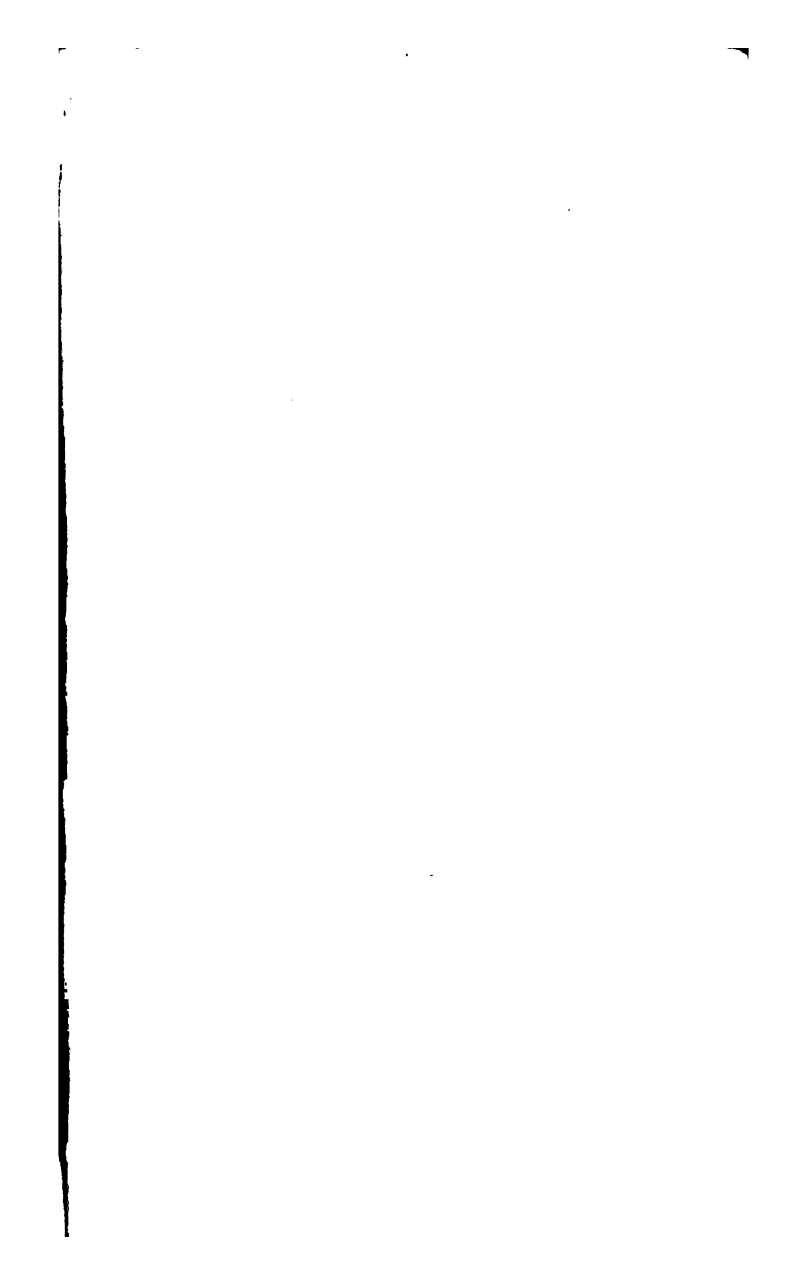
There does not seem to have been any material difference on the whole, between the treatment experienced by the slaves under the Grecian and the Roman governments. The Helots might have enjoyed some advantages from the fact that they were the property of the State, and lived away from the immediate control of masters, in a condition somewhat similar to that of the serfs of modern Russia; yet they were liable to the horrible *cryptia*. Previously to the reign of Antoninus Pius, the slave at Rome was much less protected by law and public feeling than the slave at Athens. At Sparta, slaves seems to have had hardly any hopes of ever being admitted amongst freemen. At Athens, emancipation was frequent; but the privileges of citizens rarely followed, even to a limited extent, and were conferred by public authority only. At Rome, the lowest slave could always look forward to manumission, and to obtaining the rank of a citizen, through the sole will of his master. Still, the Romans, like the Greeks, never came so far from the original view, of slaves being the absolute property of their owner, as to consider the master's rights limited to the unpaid services of the slave, and his powers restricted, to those of a domestic magistrate, for correction of slight misconduct, and for enforcement of obedience and exertion. *

The effect of Christianity, in meliorating the usage of slaves, though not sudden, was important. The various Christian emperors issued decrees, abridging the power of masters, and raising slaves above the level of insentient creatures. The church openly condemned the barbarous treatment of slaves. Clemens Alexandrinus, in the close of the second century, forbade the bishop to accept the oblations of cruel and sanguinary masters. At last Justinian did most to encourage improvement in the condition of bondmen, and to promote the ultimate extinction of slavery.†

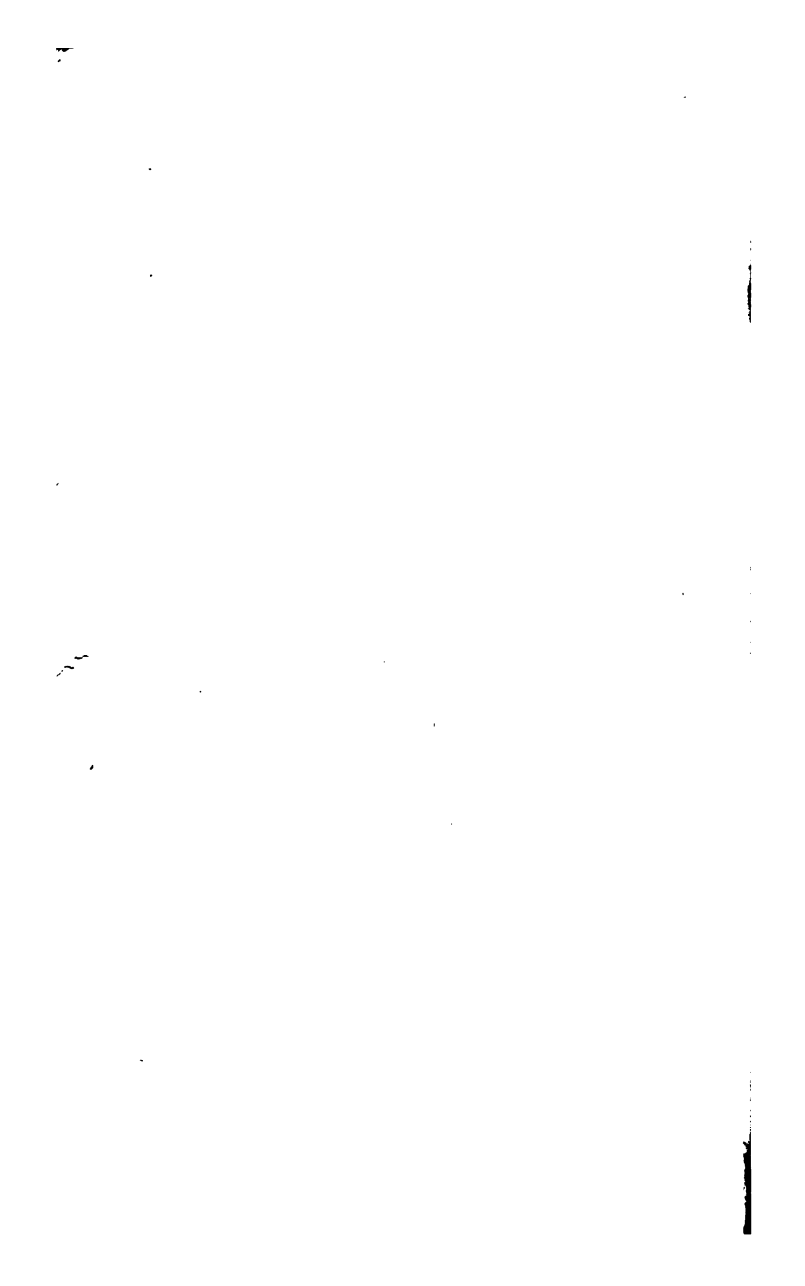
* See William Blair's Inquiry into the State of Slavery among the Romans, Edin. 1833. Also Dunlop's History of Roman Literature.

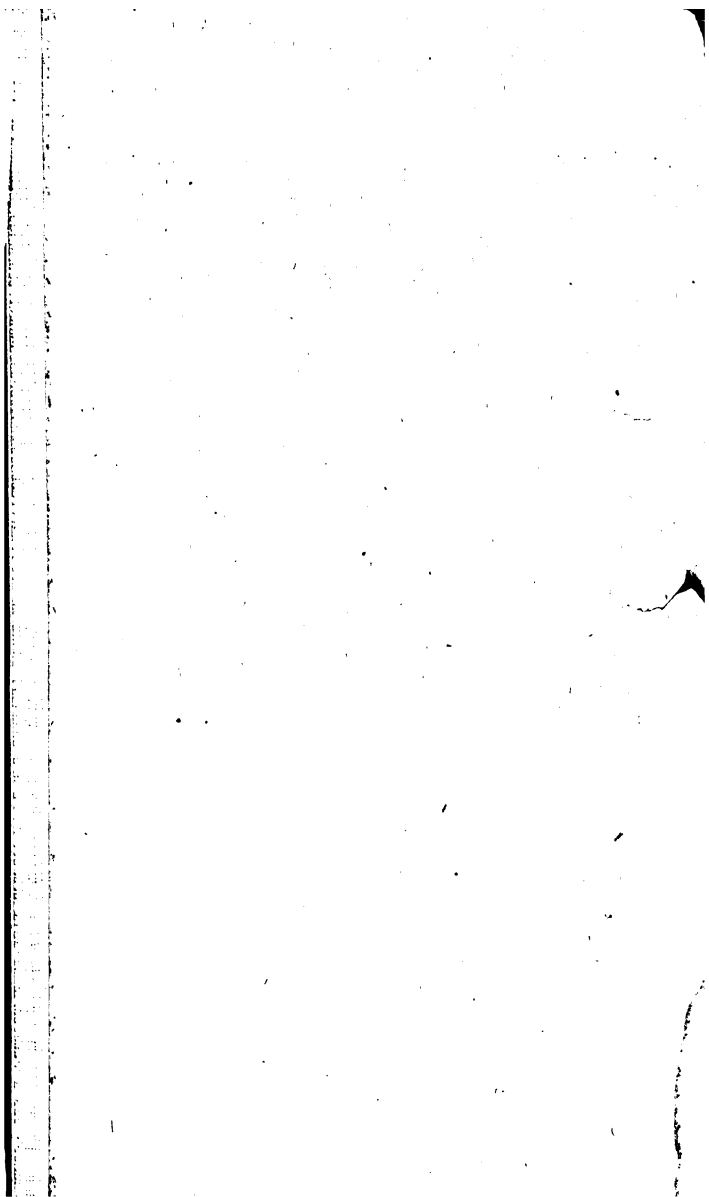
† Gibbon's Hist. Decline and Fall, chap. 44.

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